

A1-F18AC-SRM-500

1 February 1995

Change 9 - 1 March 2002

TECHNICAL MANUAL

**ORGANIZATIONAL, INTERMEDIATE, AND DEPOT
MAINTENANCE**

AIRCRAFT CORROSION CONTROL

NAVY MODEL

F/A-18A/B/C/D

161353 AND UP

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NATEC ELECTRONIC MANUAL

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Only those work packages/pages assigned to the manual are listed in this index. Insert Change 9, dated 1 March 2002. Dispose of superseded work packages/pages. Superseded classified work packages/pages shall be destroyed in accordance with applicable security regulations. If changed pages are issued to a work package, insert the changed pages in the applicable work package. The portion of text affected in a change or revision is indicated by change bars or the change symbol "R" in the outer margin of each column of text. Changes to illustrations are indicated by pointing hands, change bars, or MAJOR CHANGE symbols. Changes to diagrams may be indicated by shaded borders.

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| 001 00 | | 8.....0 | | 15.....7 | | 2.....0 | |
| 1.....9 | | 9.....0 | | 16.....7 | | 3.....0 | |
| 2.....9 | | 10.....0 | | 17.....6 | | 4 blank.....0 | |
| 001 01 | | 11.....0 | | 18.....6 | | 009 00 | |
| 1.....4 | | 12 blank.....0 | | 19.....6 | | 1.....0 | |
| 2.....4 | | 005 02 | | 20 blank.....6 | | 2.....0 | |
| 3.....4 | | 1.....4 | | 005 04 | | 009 01 | |
| 4 blank.....4 | | 2.....3 | | 1.....3 | | 1.....3 | |
| 002 00 | | 3.....3 | | 2.....3 | | 2.....3 | |
| 1.....7 | | 4.....3 | | 3.....0 | | 3.....3 | |
| 2.....7 | | 5.....4 | | 4.....0 | | 4.....3 | |
| 3.....7 | | 6.....4 | | 5.....3 | | 5.....3 | |
| 4.....7 | | 7.....4 | | 6.....0 | | 6 blank.....3 | |
| 5.....7 | | 8.....4 | | 7.....0 | | 010 00 | |
| 6 blank.....7 | | 8A.....4 | | 8.....0 | | 1.....3 | |
| 003 00 | | 8B blank.....4 | | 9.....0 | | 2.....3 | |
| 1.....0 | | 9.....4 | | 10.....0 | | 3.....3 | |
| 2.....0 | | 10.....3 | | 11.....0 | | 4.....0 | |
| 3.....0 | | 10A.....3 | | 12 blank.....0 | | 5.....0 | |
| 4 blank.....0 | | 10B blank.....3 | | 005 05 | | 6.....3 | |
| 004 00 | | 11.....0 | | 1.....9 | | 7.....3 | |
| 1.....4 | | 12.....0 | | 2.....9 | | 8.....0 | |
| 2.....4 | | 13.....0 | | 3.....9 | | 9.....0 | |
| 3.....4 | | 14.....0 | | 4.....9 | | 10.....0 | |
| 4.....4 | | 15.....0 | | 5.....9 | | 11.....0 | |
| 5.....4 | | 16.....0 | | 6.....9 | | 12.....0 | |
| 6.....4 | | 17.....4 | | 7.....9 | | 011 00 | |
| 7.....4 | | 18.....4 | | 8.....9 | | 1.....3 | |
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| 2.....4 | | 3.....6 | | 006 01 | | 5.....3 | |
| 3.....4 | | 4.....6 | | 1.....4 | | 6 blank.....3 | |
| 4.....4 | | 5.....6 | | 2.....4 | | 012 00 | |
| | | 6.....6 | | 3.....4 | | 1.....3 | |

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| 2..... | 3 | 18 blank | 0 | 6..... | 0 | 7..... | 0 |
| 3..... | 3 | 016 00 | | 7..... | 0 | 8..... | 0 |
| 4..... | 3 | 1..... | 1 | 8..... | 0 | 9..... | 0 |
| 5..... | 3 | 2..... | 0 | 9..... | 0 | 10..... | 0 |
| 6..... | 3 | 3..... | 0 | 10..... | 0 | 11..... | 0 |
| 7..... | 3 | 4..... | 0 | 11..... | 0 | 12..... | 0 |
| 8..... | 3 | 5..... | 0 | 12..... | 0 | 13..... | 0 |
| 9..... | 3 | 6..... | 0 | 13..... | 0 | 14..... | 0 |
| 10 blank | 3 | 7..... | 0 | 14..... | 0 | 15..... | 0 |
| 013 00 | | 8..... | 0 | 15..... | 0 | 16 blank | 0 |
| 1..... | 0 | 9..... | 0 | 16..... | 0 | 023 00 | |
| 2..... | 0 | 10..... | 0 | 17..... | 0 | 1..... | 0 |
| 3..... | 0 | 11..... | 0 | 18..... | 0 | 2..... | 0 |
| 4..... | 0 | 12..... | 0 | 19..... | 0 | 3..... | 0 |
| 5..... | 0 | 13..... | 0 | 20 blank | 0 | 4..... | 0 |
| 6..... | 0 | 14..... | 0 | 020 00 | | 5..... | 0 |
| 7..... | 0 | 15..... | 0 | 1..... | 0 | 6 blank | 0 |
| 8..... | 0 | 16..... | 0 | 2..... | 0 | 024 00 | |
| 014 00 | | 17..... | 0 | 3..... | 0 | 1..... | 3 |
| 1..... | 0 | 18..... | 1 | 4..... | 0 | 2..... | 3 |
| 2..... | 0 | 19..... | 0 | 5..... | 0 | 3..... | 0 |
| 3..... | 0 | 20..... | 0 | 6..... | 0 | 4..... | 0 |
| 4..... | 0 | 21..... | 0 | 7..... | 0 | 5..... | 0 |
| 015 00 | | 22..... | 1 | 8 blank | 0 | 6..... | 0 |
| 1..... | 0 | 23..... | 1 | 021 00 | | 7..... | 0 |
| 2 blank | 0 | 24..... | 0 | 1..... | 3 | 8..... | 0 |
| 015 01 | | 25..... | 0 | 2..... | 3 | 9..... | 0 |
| 1..... | 3 | 26..... | 0 | 3..... | 3 | 10..... | 0 |
| 2..... | 3 | 27..... | 0 | 4..... | 3 | 11..... | 0 |
| 3..... | 3 | 28..... | 0 | 5..... | 3 | 12..... | 0 |
| 4..... | 3 | 29..... | 0 | 6..... | 3 | 13..... | 0 |
| 5..... | 3 | 30..... | 0 | 7..... | 3 | 14..... | 0 |
| 6..... | 3 | 017 00 | | 8..... | 3 | 15..... | 0 |
| 015 02 | | 1..... | 0 | 9..... | 3 | 16..... | 0 |
| 1..... | 3 | 2..... | 0 | 10 blank | 3 | 17..... | 0 |
| 2..... | 3 | 3..... | 0 | 022 00 | | 18..... | 0 |
| 3..... | 3 | 4 blank | 0 | 1..... | 0 | 19..... | 0 |
| 4..... | 3 | 018 00 | | 2..... | 0 | 20..... | 0 |
| 5..... | 3 | 1..... | 3 | 3..... | 0 | 21..... | 0 |
| 6..... | 3 | 2..... | 3 | 4..... | 0 | 22..... | 0 |
| 7..... | 3 | 3..... | 0 | 5..... | 0 | 23..... | 0 |
| 8..... | 3 | 4..... | 0 | 6..... | 0 | 24..... | 0 |
| 9..... | 3 | 5..... | 0 | 7..... | 0 | 25..... | 0 |
| 10..... | 3 | 6..... | 0 | 8..... | 0 | 26..... | 0 |
| 015 03 | | 7..... | 0 | 9..... | 0 | 27..... | 0 |
| 1..... | 3 | 8..... | 0 | 10..... | 0 | 28 blank | 0 |
| 2..... | 3 | 9..... | 0 | 11..... | 0 | 025 00 | |
| 3..... | 3 | 10..... | 0 | 12..... | 0 | 1..... | 0 |
| 4..... | 3 | 11..... | 0 | 13..... | 0 | 2..... | 0 |
| 5..... | 3 | 12..... | 0 | 14 blank | 0 | 3..... | 0 |
| 6..... | 0 | 13..... | 0 | 022 01 | | 4..... | 0 |
| 7..... | 2 | 14..... | 0 | 1..... | 0 | 5..... | 0 |
| 8..... | 0 | 15..... | 0 | 2..... | 0 | 6..... | 0 |
| 9..... | 0 | 16..... | 0 | 3..... | 0 | 7..... | 0 |
| 10..... | 0 | 17..... | 0 | 4..... | 0 | 8..... | 0 |
| 11..... | 0 | 18 blank | 0 | 022 02 | | 9..... | 0 |
| 12..... | 0 | 019 00 | | 1..... | 0 | 10..... | 0 |
| 13..... | 0 | 1..... | 4 | 2..... | 0 | 11..... | 0 |
| 14..... | 0 | 2..... | 0 | 3..... | 0 | 12..... | 0 |
| 15..... | 0 | 3..... | 3 | 4..... | 0 | 13..... | 0 |
| 16..... | 0 | 4..... | 4 | 5..... | 0 | 14..... | 0 |
| 17..... | 0 | 5..... | 0 | 6..... | 0 | 15..... | 0 |

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| 16..... | 0 | 19..... | 0 | 14..... | 0 | 49..... | 0 |
| 17..... | 0 | 20..... | 0 | 15..... | 0 | 50..... | 0 |
| 18..... | 0 | 21..... | 0 | 16..... | 0 | 51..... | 0 |
| 19..... | 0 | 22..... | 0 | 17..... | 0 | 52..... | 0 |
| 20..... | 0 | 028 00 | | 18..... | 0 | 53..... | 0 |
| 21..... | 0 | 1..... | 0 | 19..... | 0 | 54..... | 0 |
| 22..... | 0 | 2..... | 0 | 20..... | 2 | 55..... | 0 |
| 23..... | 0 | 3..... | 0 | 21..... | 0 | 56..... | 0 |
| 24..... | 0 | 4..... | 0 | 22..... | 0 | 57..... | 0 |
| 25..... | 0 | 5..... | 0 | 23..... | 0 | 58..... | 0 |
| 26..... | 0 | 6..... | 0 | 24 blank | 0 | 59..... | 0 |
| 27..... | 0 | 7..... | 0 | 031 00 | | 60..... | 0 |
| 28..... | 0 | 8..... | 0 | 1..... | 1 | 61..... | 0 |
| 29..... | 0 | 9..... | 0 | 2..... | 1 | 62..... | 0 |
| 30..... | 0 | 10..... | 0 | 2A..... | 1 | 63..... | 0 |
| 31..... | 0 | 11..... | 0 | 2B blank | 1 | 64..... | 0 |
| 32 blank | 0 | 12..... | 0 | 3..... | 0 | 65..... | 0 |
| 025 01 | | 13..... | 0 | 4..... | 0 | 66..... | 0 |
| 1..... | 0 | 14..... | 0 | 5..... | 0 | 67..... | 0 |
| 2..... | 0 | 15..... | 0 | 6..... | 0 | 68..... | 0 |
| 3..... | 0 | 16..... | 0 | 7..... | 0 | 69..... | 0 |
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| 6..... | 0 | 19..... | 0 | 10..... | 0 | 72..... | 0 |
| 7..... | 0 | 20..... | 0 | 11..... | 0 | 73..... | 0 |
| 8..... | 0 | 21..... | 0 | 12..... | 0 | 74..... | 0 |
| 9..... | 0 | 22..... | 0 | 13..... | 0 | 75..... | 0 |
| 10..... | 0 | 23..... | 0 | 14..... | 0 | 76..... | 0 |
| 11..... | 0 | 24..... | 0 | 15..... | 0 | 77..... | 0 |
| 12..... | 0 | 25..... | 0 | 16..... | 0 | 78..... | 0 |
| 13..... | 0 | 26..... | 0 | 17..... | 0 | 79..... | 0 |
| 14..... | 0 | 27..... | 0 | 18..... | 0 | 80..... | 0 |
| 15..... | 0 | 28..... | 0 | 19..... | 0 | 81..... | 0 |
| 16..... | 0 | 29..... | 0 | 20..... | 0 | 82 blank | 0 |
| 17..... | 0 | 30..... | 0 | 21..... | 0 | 032 00 | |
| 18..... | 0 | 31..... | 0 | 22..... | 0 | 1..... | 0 |
| 19..... | 0 | 32..... | 0 | 23..... | 0 | 2..... | 0 |
| 20..... | 0 | 33..... | 0 | 24..... | 0 | 3..... | 0 |
| 21..... | 0 | 34 blank | 0 | 25..... | 0 | 4..... | 0 |
| 22..... | 0 | 029 00 | | 26..... | 0 | 5..... | 0 |
| 026 00 | | 1..... | 0 | 27..... | 0 | 6 blank | 0 |
| 1..... | 0 | 2..... | 0 | 28..... | 0 | 033 00 | |
| 2..... | 0 | 3..... | 0 | 29..... | 0 | 1..... | 3 |
| 027 00 | | 4..... | 0 | 30..... | 0 | 2..... | 3 |
| 1..... | 3 | 5..... | 0 | 31..... | 0 | 3..... | 0 |
| 2..... | 3 | 6..... | 0 | 32..... | 0 | 4..... | 0 |
| 3..... | 0 | 7..... | 0 | 33..... | 0 | 5..... | 0 |
| 4..... | 0 | 8 blank | 0 | 34..... | 0 | 6..... | 0 |
| 5..... | 0 | 030 00 | | 35..... | 0 | 7..... | 0 |
| 6..... | 0 | 1..... | 3 | 36..... | 0 | 8..... | 0 |
| 7..... | 0 | 2..... | 3 | 37..... | 0 | 9..... | 0 |
| 8..... | 0 | 3..... | 0 | 38..... | 0 | 10..... | 0 |
| 9..... | 0 | 4..... | 0 | 39..... | 0 | 11..... | 0 |
| 10..... | 0 | 5..... | 2 | 40..... | 0 | 12..... | 0 |
| 11..... | 0 | 6..... | 0 | 41..... | 0 | 13..... | 0 |
| 12..... | 0 | 7..... | 0 | 42..... | 0 | 14..... | 0 |
| 13..... | 0 | 8..... | 0 | 43..... | 0 | 15..... | 0 |
| 14..... | 0 | 9..... | 0 | 44..... | 0 | 16..... | 0 |
| 15..... | 0 | 10..... | 0 | 45..... | 0 | 17..... | 0 |
| 16..... | 0 | 11..... | 0 | 46..... | 0 | 18 blank | 0 |
| 17..... | 0 | 12..... | 0 | 47..... | 0 | 034 00 | |
| 18..... | 0 | 13..... | 2 | 48..... | 0 | 1..... | 0 |

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| 2..... | 0 | 6..... | 0 | 10..... | 6 | | |
| 3..... | 0 | 7..... | 0 | 043 00 reserved | 0 | | |
| 4..... | 0 | 8..... | 0 | 044 00 reserved | 0 | | |
| 5..... | 0 | 9..... | 0 | 045 00 | | | |
| 6..... | 0 | 10..... | 2 | 1..... | 3 | | |
| 7..... | 0 | 11..... | 0 | 2..... | 3 | | |
| 8..... | 0 | 12..... | 0 | 3..... | 3 | | |
| 9..... | 0 | 13..... | 0 | 4..... | 3 | | |
| 10..... | 0 | 14..... | 0 | 5..... | 3 | | |
| 11..... | 0 | 15..... | 0 | 6..... | 3 | | |
| 12..... | 0 | 16..... | 2 | 046 00 | | | |
| 13..... | 0 | 17..... | 0 | 1..... | 3 | | |
| 14..... | 0 | 18..... | 0 | 2..... | 3 | | |
| 15..... | 0 | 19..... | 0 | 3..... | 3 | | |
| 16..... | 0 | 20..... | 0 | 4..... | 3 | | |
| 17..... | 0 | 21..... | 8 | 5..... | 3 | | |
| 18..... | 0 | 22..... | 2 | 6..... | 3 | | |
| 19..... | 0 | 23..... | 6 | 7..... | 3 | | |
| 20..... | 0 | 24 blank | 6 | 8..... | 3 | | |
| 21..... | 0 | 037 00 | | 047 00 | | | |
| 22..... | 0 | 1..... | 0 | 1..... | 3 | | |
| 23..... | 0 | 2..... | 0 | 2..... | 3 | | |
| 24..... | 0 | 3..... | 0 | 3..... | 3 | | |
| 25..... | 0 | 4..... | 0 | 4..... | 3 | | |
| 26..... | 0 | 5..... | 0 | 5..... | 3 | | |
| 27..... | 0 | 6..... | 0 | 6..... | 3 | | |
| 28..... | 0 | 7..... | 0 | 048 00 | | | |
| 29..... | 0 | 8..... | 0 | 1..... | 4 | | |
| 30..... | 0 | 9..... | 0 | 2..... | 4 | | |
| 31..... | 0 | 10..... | 0 | 3..... | 4 | | |
| 32..... | 0 | 11..... | 0 | 4..... | 4 | | |
| 33..... | 0 | 12 blank | 0 | | | | |
| 34..... | 0 | 038 00 | | | | | |
| 35..... | 0 | 1..... | 0 | | | | |
| 36..... | 0 | 2..... | 0 | | | | |
| 37..... | 0 | 039 00 | | | | | |
| 38..... | 0 | 1..... | 3 | | | | |
| 39..... | 0 | 2..... | 3 | | | | |
| 40..... | 0 | 3..... | 0 | | | | |
| 41..... | 0 | 4..... | 0 | | | | |
| 42..... | 0 | 5..... | 0 | | | | |
| 43..... | 0 | 6..... | 0 | | | | |
| 44..... | 0 | 7..... | 0 | | | | |
| 45..... | 0 | 8..... | 0 | | | | |
| 46..... | 0 | 9..... | 0 | | | | |
| 47..... | 0 | 10..... | 0 | | | | |
| 48..... | 0 | 11..... | 0 | | | | |
| 49..... | 0 | 12..... | 0 | | | | |
| 50..... | 0 | 13..... | 0 | | | | |
| 51..... | 0 | 14 blank | 0 | | | | |
| 52 blank | 0 | 040 00 reserved | 0 | | | | |
| 035 00 | | 041 00 reserved | 0 | | | | |
| 1..... | 3 | 042 00 | | | | | |
| 2..... | 3 | 1..... | 6 | | | | |
| 3..... | 3 | 2..... | 6 | | | | |
| 4 blank | 3 | 3..... | 6 | | | | |
| 036 00 | | 4..... | 6 | | | | |
| 1..... | 8 | 5..... | 6 | | | | |
| 2..... | 3 | 6..... | 6 | | | | |
| 3..... | 0 | 7..... | 6 | | | | |
| 4..... | 0 | 8..... | 6 | | | | |
| 5..... | 2 | 9..... | 6 | | | | |

LIST OF TECHNICAL PUBLICATION DEFICIENCY REPORTS INCORPORATED

ORGANIZATIONAL, INTERMEDIATE, AND DEPOT MAINTENANCE

AIRCRAFT CORROSION CONTROL

This WP supersedes TPDR WP, dated 15 February 2002.

-
1. The TPDRs listed below have been incorporated in this issue.

| IDENTIFICATION NUMBER/ QA SEQUENCE NUMBER | LOCATION |
|--|----------|
| None | |

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ORGANIZATIONAL, INTERMEDIATE, AND DEPOT MAINTENANCE

AIRCRAFT CORROSION CONTROL

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ORGANIZATIONAL MAINTENANCE

CORROSION CONTROL INDEX

AIRCRAFT CORROSION CONTROL

This WP supersedes WP001 01, dated 1 February 1995.

Reference Material

None

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Figure 1 shows main components of the aircraft and where they are located in the manual.

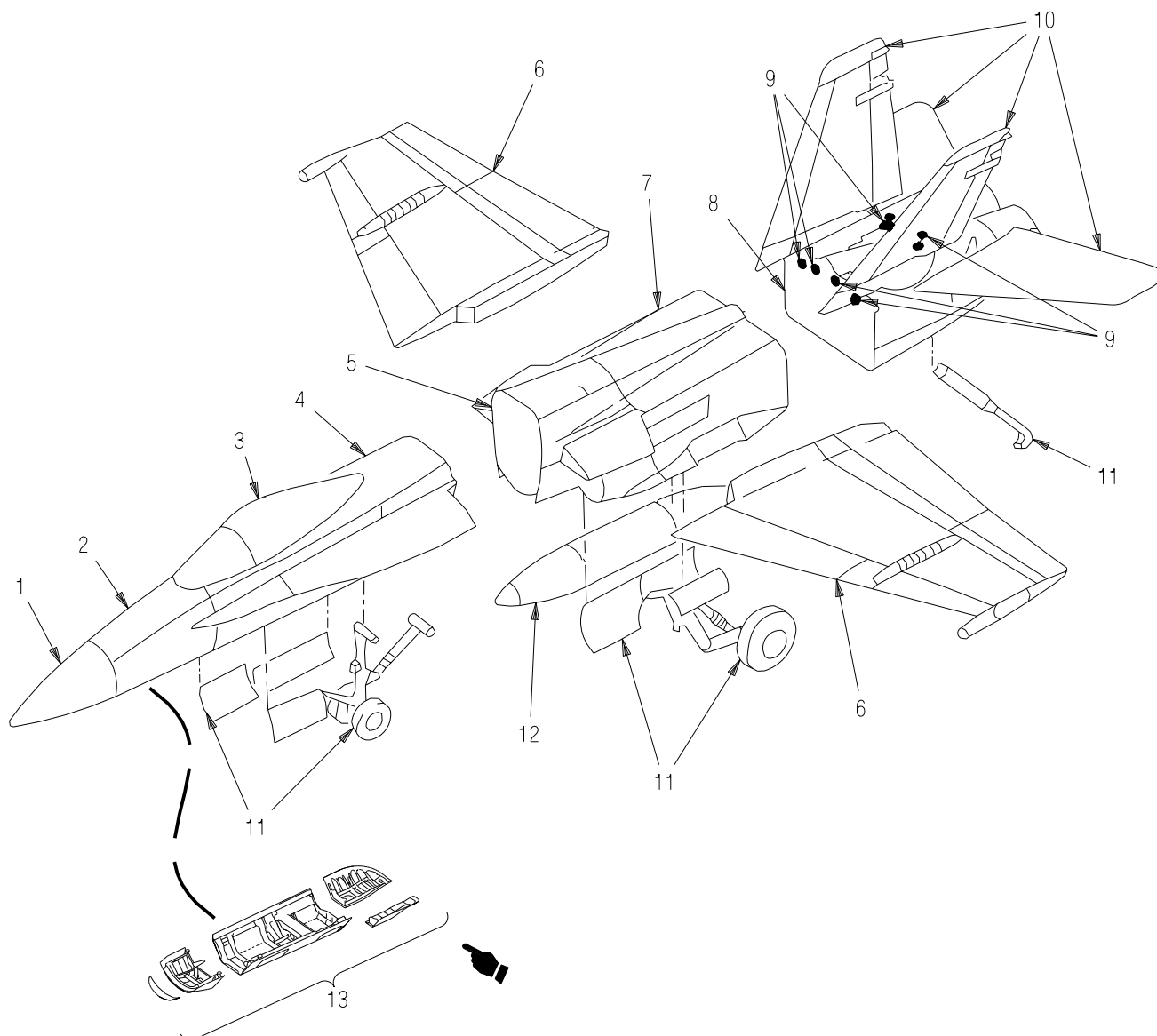


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| 9 | ENGINE SUPPORTS FINISH SYSTEM | 045 00 |
| 10 | EMPENNAGE CORROSION PRONE AREAS FINISH SYSTEM AND MARKINGS SEALING | 037 00 039 00 038 00 |
| 11 | LANDING GEAR, ARRESTING HOOK AND LAUNCH BAR FINISH SYSTEM AND MARKINGS | 042 00 |
| 12 | EXTERNAL FUEL TANK FINISH SYSTEM AND MARKINGS,CYLINDRICAL TANK FINISH SYSTEM AND MARKINGS, ELLIPTICAL TANK | 046 00 047 00 |
| 13 | RECONNAISSANCE (RECCE) BAY DOOR FINISH SYSTEM | 048 00 |

Figure 1. Corrosion Control Index (Sheet 2)

INTRODUCTION

ORGANIZATIONAL, INTERMEDIATE, AND DEPOT MAINTENANCE

AIRCRAFT CORROSION CONTROL

This WP supersedes WP 002 00, dated 1 February 1995.

1. PURPOSE.

2. This manual provides corrosion control procedures for organizational, intermediate, and depot levels of maintenance and should be used with NAVAIR 01-1A-509. When tasks are identified as intermediate or depot, they will be identified within each specific procedure work package.

3. REQUISITION AND AUTOMATIC DISTRIBUTION OF NAVAIR TECHNICAL MANUALS.

4. Procedures to be used by Naval activities and other Department of Defense activities requiring NAVAIR technical manuals are defined in NAVAIR 00-25-100 and NAVAIRINST 5605.5.4A.

5. To automatically receive future changes and revisions to NAVAIR technical manuals, an activity must be established on the Automatic Distribution Requirements List (ADRL) maintained by the Naval Air Technical Data and Engineering Service Command (NATEC). To become established on the ADRL, notify your activity central technical publications librarian. If your activity does not have a library, you may establish your automatic distribution by contacting the Commanding Officer, NATEC, Attn: Distribution, NAS North Island, Bldg. 90, P.O. Box 357031, San Diego CA 92135-7031. Annual reconfirmation of these requirements is necessary to remain on automatic distribution. Please use your NATEC assigned account number whenever referring to automatic distribution requirements.

6. If additional or replacement copies of this manual are required with no attendant changes in the ADRL, they may be ordered by submitting a MILSTRIP requisition in accordance with NAVSUP 485 to Routing Identifier Code "NFZ". MILSTRIP requisitions can be submitted through your supply office, Navy message, or SALTS to

DAAS (Defense Automated Address System), or through the DAAS or NAVSUP web sites. For assistance with a MILSTRIP requisition, contact the Naval Inventory Control Point (NAVICP) Publications and Forms Customer Service at DSN 442-2626 or (215) 697-2626, Monday through Friday, 0700 to 1600 Eastern Time.

7. TRAINING AND QUALIFICATION REQUIREMENTS.

8. The minimum requirements for training and qualification of corrosion control personnel are defined in OPNAVINST 4790.2 SERIES.

9. MANUAL ISSUE DATE.

10. The date on the title page is the copy freeze date. No additions, deletions, or changes are made after the manual issue date, except last minute safety of flight or required maintenance changes. Data collected after the manual issue date will be included in later changes or revisions of the manual.

11. EFFECTIVITIES.

12. Effectivity notes on manual title pages, work package title pages, and within a work package indicate the aircraft to which the data applies. If no effectivity note appears on the work package title page, the work package has the same effectivity as shown on the manual title page. The effectivity notes may use:

NOTE

Aircraft with model designator F/A-18B are the same type and model as TF/A-18A.

- a. Type, model, and series
- b. Bureau number (tail number)

c. Combination of type, model series, and bureau numbers

e. Technical directive number

d. Part number or serial number

The table below shows examples of effectivity notes and their meanings:

Effectivity Note Examples

| Effectivity Note | Definition |
|------------------------------------|--|
| 161392 AND UP | Applicable to all F/A-18A, F/A-18B, F/A-18C and F/A-18D for bureau numbers listed. |
| F/A-18A, F/A-18B | Applicable to all F/A-18A and F/A-18B. |
| F/A-18C, F/A-18D | Applicable to all F/A-18C and F/A-18D. |
| F/A-18A | Applicable to all F/A-18A, but not F/A-18B, F/A-18C and F/A-18D. |
| F/A-18B | Applicable to all F/A-18B, but not F/A-18A, F/A-18C, and F/A-18D. |
| F/A-18C | Applicable to all F/A-18C, but not F/A-18A, F/A-18B, and F/A-18D. |
| F/A-18D | Applicable to all F/A-18D, but not F/A-18A, F/A-18B, and F/A-18C. |
| F/A-18A, F/A-18C | Applicable to all F/A-18A and F/A-18C, but not to F/A-18B and F/A-18D. |
| F/A-18B, F/A-18D | Applicable to all F/A-18B and F/A-18D, but not to F/A-18A and F/A-18C. |
| F/A-18A 161353, 161359 THRU 161364 | Only applicable to some bureau numbers of F/A-18A. Not applicable to any F/A-18B, even if a F/A-18B bureau number is within the numbers listed. |
| F/A-18C 163427, 163449 THRU 163456 | Only applicable to some bureau numbers of F/A-18C. Not applicable to any F/A-18D, even if a F/A-18D bureau number is within the numbers listed. |
| F/A-18B 160784 AND UP | Only applicable to some bureau numbers of F/A-18B. Not applicable to any F/A-18A, even if an F/A-18A bureau number is within the numbers listed. |
| F/A-18D 163434 THRU 163457 | Only applicable to some bureau numbers of F/A-18D. Not applicable to any F/A-18C, even if a F/A-18C bureau number is within the numbers listed. |

Effectivity Note Examples (Continued)

| Effectivity Note | Definition |
|--|--|
| F/A-18B 160784 AND UP, F/A-18D | Applicable to some bureau numbers of F/A-18B. Not applicable to any F/A-18A, even if an F/A-18A bureau number is within the numbers listed. Also applicable to all F/A-18D aircraft. |
| 161353 THRU 161356 BEFORE F18 AFC 772 | Applicable to F/A-18A and F/A-18B for bureau numbers listed, before modification by technical directive. |
| 161357 AND UP ALSO 161353 THRU 161356 AFTER F18 AFC 772 AND F/A-18C, F/A-18D | Applicable to aircraft modified during production; also applicable when affected aircraft have been modified by technical directive. |
| P/N 74A210001-1001, 74A210001-1003, AND 74A210001-1005 | Applicable to assemblies which are interchangeable between aircraft. |
| Outer Wing, Assembly Serial Number, A13-0022 | Applicable to assemblies which are interchangeable between aircraft, but configurations cannot be identified by part number. |

13. TECHNICAL DIRECTIVES.

14. Technical directives are documents which direct the accomplishment, and recording of a retrofit configuration or inspection to delivered aircraft, or aircraft components.

15. AIRFRAME CHANGE (AFC) AND AIRBORNE SOFTWARE CHANGE (ASC) . Technical directives which change configuration of aircraft structure or equipment installation, i.e. AFC, will list aircraft bureau numbers in effectivity notes and show before and after the AFC. Technical directives which change configuration of operational flight programs (OFP), i.e. ASC, will list the OFP CONFIG/IDENT NUMBER in effectivity notes and show the latest two authorized OFP programs. See AFC and ASC effectivity examples in Effectivity Note Example Table.

16. AIRCRAFT COMPONENT CHANGES.

Technical directives which change configuration of aircraft components, i.e. AAC, ACC, AVC, AYC, and PPC will list part numbers in the effectivities. See AVC effectivity examples in Effectivity Note Example table.

17. RECORD OF APPLICABLE TECHNICAL DIRECTIVES.

18. The technical directives affecting this manual are listed in the Record of Applicable Technical Directives of each affected work package. Because an ASC directs all aircraft be modified within 30 days, ASC's are not listed. When a technical directive is rescinded, the before configuration is removed from the manual, and the technical directive entry is removed from the Record of Applicable Technical Directives.

19. HOW TO USE THE MANUAL.

20. Text and illustrations contained in this manual are in work package format. These work packages are complete sets of data or procedures arranged in a logical sequence supplying instructions, references, and material/equipment requirements for corrosion control. Work package types contained in this manual are listed below:

a. Numerical Index of Effective Work Packages/Pages. This index (A page) provides the user with the current status of the publication.

b. Technical Publication Deficiency Report (TPDR) Work Package. This work package lists deficiency reports incorporated into a specific

manual during changes/revision. This work package is numbered TPDR-1.

c. Alphabetical Index Work Package. This work package contains an alphabetical listing, by title, of each work package contained within the manual. This work package is numbered 001 00.

d. Introduction Work Package. This work package contains introductory information for corrosion control use. This work package is numbered 002 00.

e. General Information Work Package. General information related to corrosion control of aircraft structure and structural components is included. This work package is numbered 003 00.

f. Typical Procedure Work Packages. Typical procedure work packages are those which contain information applicable to more than one structural group or component. This avoids duplication of information and is referenced as needed. An example of a typical procedure work package is 009 00.

g. Specific Procedure Work Packages. Corrosion control procedures which are unique to the aircraft and not covered in available general manuals are provided in detail in this manual. Specific procedures work packages provide data for structural groups, areas, or components on the aircraft. These work packages include: corrosion prone areas, seals and sealing, finish system, and markings.

21. WARNINGS, CAUTIONS, AND NOTES.

22. Items of special importance and critical information are identified in warnings, cautions, and notes. Warnings and cautions appear immediately before the step to which they apply. Notes may appear before or after the affected step.

WARNING

Warnings describe conditions or procedures that could result in injury or death if correct procedures are not followed.

CAUTION

Cautions describe conditions or procedures that could result in damage to or destruction of equipment if correct procedures are not followed.

NOTE

Notes describe or clarify conditions or procedures.

23. SAFETY PRECAUTIONS.

24. General safety precautions applicable to corrosion control are contained in NAVAIR 01-1A-509. Additional safety precautions are contained in specific and typical procedure work packages as needed.

25. TECHNICAL PUBLICATION DEFICIENCY REPORTS (TPDR).

26. The TPDR (OPNAV FORM 4790/66) is the form for reporting errors and suspected omissions in the technical manuals. Reporting procedures are in OPNAVINST 4790.2 SERIES.

27. QUALITY ASSURANCE PROCEDURES.

28. Procedures or parts of procedures which require quality assurance inspection are identified by the letters (QA) after the applicable steps. When (QA) is assigned to a step or a heading which is immediately followed by substeps, the inspection requirement is applicable to all substeps.

29. When doing maintenance in any area, a visual inspection of the area will be made for cracks, corrosion, and security of component installation before securing the area for flight.

30. CORROSION CONTROL TERMS.

31. This list contains definitions for the commonly used corrosion control methods plus terms of a

general nature which may be applicable. For more terms (NAVAIR 01-1A-509), glossary.

ION VAPOR DEPOSITION (IVD):

Application of coating with high purity aluminum on ferrous and nonferrous metals for a corrosion prevention/protective finish.

SWEAT-IN PERIOD:

Time to allow chemicals to mix or combine.

FISH-EYE:

Area in paint, similar to the eye of a fish, caused by moisture or contamination.

SPOT-IN:

Spray or brush application of one coat of primer/finish coat during touchup.

MOLD LINE/MOLD LINE SURFACE:

Outer skin/surface of aircraft.

SET-TO-TOUCH:

Sealant will not transfer to finger when touched, but is tacky. Sealant can be primed in this condition.

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

GENERAL INFORMATION

Reference Material

| | |
|--|------------------|
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Plane Captain Manual | A1-F18AC-PCM-000 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Cleaning..... | WP006 00 |
| Stripping..... | WP007 00 |
| Chemical Treatment..... | WP008 00 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |

Alphabetical Index

| Subject | Page No. |
|--------------------------|----------|
| Description | 1 |
| Masking | 2 |
| Protective Covers | 1 |
| Safety Precautions | 1 |
| Types of Corrosion..... | 1 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The F/A-18A, B, C and D aircraft are a composition of aluminum, graphite epoxy, fiberglass, titanium, and steel. The airframe is primarily made of aluminum. Graphite epoxy composite and fiberglass are used for many skins and doors. Titanium is also used for skins and doors. Where maximum strength is required, beta annealed bar, plate, and forgings are used. High strength steel is used in landing and arresting gear. Hydraulic tube assemblies are titanium.

3. **TYPES OF CORROSION.** Information on types of corrosion, cause, and appearance is contained in NAVAIR 01-1A-509.

4. **PROTECTIVE COVERS.** Protective covers are necessary to aid in protecting aircraft during non-operational times. Protective covers are required for corrosion control. Procedures for installation and removal are contained in A1-F18AC-PCM-000, ground protective devices.

5. SAFETY PRECAUTIONS.

a. Avoid extended breathing of solvent vapors. If this is impossible, wear a respirator.

b. Do not use solvents in vicinity of smoking, sparks or open flames. Flammable solvents are extremely easy to ignite and fires may occur with explosive violence. After using flammable solvents, be certain that no traces linger on clothes or person before entering a smoking area.

c. Wear safety glasses or goggles, and rubber gloves while working with solvent.

d. Do not smoke while working with flammable solvents or while in a no-smoking area.

e. Bare filament heaters or other sources of ignition, including metal objects on shoes, are prohibited in flammable solvent areas. Electrical equipment, including flashlights, shall be explosion proof. Avoid any action which may create sparks, including dragging of steel drums, metal work stands or similar objects across a concrete floor.

f. Any area larger than one square foot cleaned with a cloth moistened with a flammable solvent shall be grounded during cleaning operation.

g. Isolate flammable solvent storage areas from areas of fire hazard. Electrically ground all equipment in storage area. Electrically bond dispensing and receiving containers to each other while transferring flammable solvents between containers.

h. Store and handle solvents in properly labeled safety containers and keep them closed while not in use.

i. Store solvents in cool, well ventilated areas.

j. Do not use heat producing devices to accelerate drying.

k. Dispose of all used rags, cloths, in safety disposal containers.

l. When using solvents, to reduce fire/toxic hazards, only amounts needed for short period of time should be available in work area.

m. Avoid eye/skin contact when using accelerator components because they contain reactive oxides and solvent blends which are flammable, toxic, and irritant.

n. Avoid contact with liquid nitrogen. Skin contact will cause severe destruction of body tissue by freezing.

o. Gloves are required to handle containers after removal from liquid nitrogen.

p. Spray operators must wear respirators during spray applications. Coveralls and protective barrier

cream applied to bear skin is required for personal protection.

q. Only spray operator(s) will be permitted in overspray area.

r. After each job, or before break periods, spray operator(s) must thoroughly wash all exposed areas of skin using soap and water.

s. No food or drink shall be allowed in or near solvent, sealant, or spray areas.

t. When using chemical treatment, protective equipment must be worn, because solution is acidic and contains fluorides.

u. Stripper specified in this manual will burn skin on contact. Adequate protective clothing, including face shield and rubber gloves, shall be worn. If stripper contacts eyes, flush with water for 15 minutes and seek medical aid.

v. Chromic acid or chemical surface treatment material, solids, and rags contaminated with these materials which have become dry will produce fire if they come in contact with flammable solvents. Do not work with solvent or acid and chemical surface treatment materials in same spaces.

w. Tools used for opening and closing containers of flammable materials should be fabricated of spark resistant materials.

6. MASKING.

Support Equipment Required

None

Materials Required

NOTE

Alternate item specification or part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|---------------------------------|--------------|
|---------------------------------|--------------|

| | |
|-----|--------------------------|
| 425 | Tape, Pressure Sensitive |
|-----|--------------------------|

Materials Required (Continued)**NOTE**

Alternate item specification or part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|---|--------------------------|
| LP378TY1 CL1GRB FNSH1-0- 004X50X96 | Plastic Sheet |
| 421 | Tape, Insulation |
| MIL-T-23397 TYPE II | Tape, Pressure Sensitive |
| A-A-203 | Paper, Kraft, Untreated |
| MIL-T-21595 TYPE 1 | Tape, Adhesive |

7. Windshield/Canopy Transparency Double Masking.**NOTE**

Windshield/canopy transparencies must be double masked when cleaning (WP006 00), stripping (WP007 00), chemical treatment (WP008 00), priming procedures (WP011 00) and finish system (WP012 00) is applied.

a. Cut one piece of plastic sheet slightly smaller than windshield transparency.

b. Cut one piece of plastic sheet slightly smaller than canopy transparency.

c. Tape plastic sheet around periphery of surrounding structure using 425 tape.

d. Cut one piece of plastic sheet slightly larger than windshield transparency.

e. Cut one piece of plastic sheet slightly larger than canopy transparency.

f. Position periphery of plastic sheets slightly beyond previously applied plastic sheets.

g. Apply 425 tape around periphery of plastic sheets over lapping previously applied tape.

h. Make sure all seams of tape are secure to structure to prevent any damaging materials from entering.

8. Nonmetallic Surfaces Double Masking.**NOTE**

Nonmetallic surfaces require double masking when: cleaning (WP006 00), stripping (WP007 00) or chemical treatment (WP008 00).

a. Cut one piece of plastic sheet slightly smaller than area to be covered.

b. Tape plastic sheet around periphery of surrounding structure using 421 or MIL-T-23397 tape.

c. Cut one piece of plastic sheet slightly larger than area to be covered.

d. Position periphery of plastic sheet slightly beyond previously applied plastic sheet.

e. Apply 421 or MIL-T-23397 tape around periphery of plastic sheet overlapping previously applied tape.

f. Make sure all seams of tape are secure to structure to prevent any damaging materials from entering.

9. General Masking of Aircraft.

10. Untreated kraft paper applied with MIL-T-21595 tape is used to cover areas not receiving cleaning (WP006 00), stripping (WP007 00), chemical treatment (WP008 00), priming (WP011 00) or finish system (WP012 00).

NOTE

Areas too small for untreated kraft paper may be masked with MIL-T-21595 tape only.

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

CORROSION CONTROL MATERIALS

This WP supersedes WP004 00, dated 1 August 1997.

Reference Material

Aircraft Weapons Systems Cleaning and Corrosion Control..... NAVAIR 01-1A-509

Alphabetical Index

| Subject | Page No. |
|-------------------|----------|
| Description | 1 |

Record of Applicable Technical Directives

None

- DESCRIPTION.** See Table 1. typical and specific procedures work packages within this manual. For more corrosion control materials (NAVAIR 01-1A-509).
- The table lists consumable materials used for aircraft corrosion control. The materials are used in

Table 1. Corrosion Control Consumable Materials

| Specification and CAGE | Nomenclature | Application |
|-------------------------|---------------------------|--|
| 020X413 (85570) | Cleaning Compound | Used to clean arc sprayed surfaces. |
| 10-04-1720-1287 (18565) | EMI Gasket, 0.103 Dia. | Used with doors 18, 26, 31, 40, 43, and 49. Used in WP005 02. |
| 10-04-2862-1287 (18565) | EMI Gasket, 0.130 Dia. | |
| 10-04-3231-1287 (18565) | EMI Gasket, 0.160 Dia. | |
| 220325 (92108) | Cartridge Assembly | Sealant gun application and storage. Used in WP's 005 02, 005 03, and 010 00. |
| 2216BA (76381) | Adhesive (Edge Sealer) | Use as an aerodynamic filler. Used in WP012 00. |
| 250-1IN (26066) | Tape, Pressure Sensitive | General purpose tape. Used in WP's 005 01, 005 03, 005 04, 009 01, 010 00, and 015 00. |

Table 1. Corrosion Control Consumable Materials (Continued)

| Specification and CAGE | Nomenclature | Application |
|---|---|--|
| 300 (26066) | Tape, Pressure Sensitive (0.125 Inch Wide) | Masking. Used in WP005 02. |
| 3073 | E-Kote, Coating, Conductive | Conductive coating applied on radome shell. Used in WP015 00. |
| 421 (99742) | Tape, Insulation | Masking. Used in WP's 003 00, 006 00, 007 00, and 015 00. |
| 425 (26066) | Tape, Pressure Sensitive (Aluminum Foil) | Masking. Used in WP003 00. |
| 599X300 (97460) | Epoxy Primer (16 oz. Aerosol Can) | Interior surface primer. Used in WP011 00. |
| 5772 048 (0YG51) | Cleaning Compound | Cleaning Solvent. Used in WP's 005 01, 005 03, 005 04, 006 00, 009 01, and 012 00. |
| 61-7715-5507-7L (27293) 61-7715-5408-8 (27293) | Brush, Rotary Fiber | Mechanical removal and feather- ing of paint, removal of mild sur- face corrosion, and polishing. Used in WP's 005 00 and 007 00. |
| 822X443 (85570) FED-STD-595 Color No. 36375, Gray | Rain Erosion Coating (Base) | Radome finish system. Used in WP015 00. |
| 855-1.000IN. (76381) | Tape, Pressure Sensitive | Masking. Used in WP's 005 01, 005 03, and 009 01. |
| 8681-GREY-36320-3IN (76381) | Plastic Strip, Press (Polyurethane Tape 3.00 Inch Wide) | Used on leading edges for erosion protection. Used in WP's 012 00, 018 00, 024 00, 027 00 and 030 00. |
| 910X363 (85570) | Rain Erosion Coating (Curing Solution) | Radome finish system. Used in WP015 00. |
| 910X377 (85570) | Antichafe Compound (Curing Solution) | Applied to finish system for in- creased protection. Used in WP's 012 00, 018 00, 024 00, and 042 00. |
| 822X430 (85570) FED-STD-595 Color No. 36375, Gray | Antichafe Compound (Base Component) | Applied to curing solution to pro- vide applicable color. Used in WP's 012 00, 018 00, and 024 00. |
| 822X694 (85570) FED-STD-595 Color No. 36320, Gray | Antichafe Compound (Base Component) | Applied to curing solution to pro- vide applicable color. Used in WP's 012 00, 018 00, and 024 00. |

Table 1. Corrosion Control Consumable Materials (Continued)

| Specification and CAGE | Nomenclature | Application |
|--|---|---|
| 824X001 (85570) FED-STD-595 Color No. 11136, Red | Antichafe Compound (Base Component) | Applied to curing solution to provide applicable color. Used in WP's 012 00, and 042 00. |
| 9M882-101 (76301) 9M882-102 (76301) 9M882-103 (76301) | Spacer Ring (0.19 I.D.-0.38 O.D.) Spacer Ring (0.25 I.D.-0.50 O.D.) Spacer Ring (0.38 I.D.-0.75 O.D.) | Prevents sealant entry into fastener holes and controls sealant squeeze out during FIP sealing. Used in WP's 005 02 and 010 00. |
| A-A-1044 (58536) | Metallic Wool | Used during stripping of finish system. Used in WP007 00. |
| A-A-1047 (58536) GRIT 60-9X11 GRIT 80-9X11 GRIT 120-9X11 GRIT 150-9X11 GRIT 180-9X11 GRIT 240-9X11 GRIT 280-9X11 GRIT 320-9X11 GRIT 400-9X11 GRIT 600-9X11 | Paper, Abrasive | Used for paint scuffing and feather sanding. Used in WP's 005 01, 005 03, 005 04, 008 00, 009 01, 010 00, and 015 00. |
| A-A-203 (58536) | Paper, Kraft, Untreated | Masking. Used in WP's 003 00, 005 01, 005 03, 005 04, 008 00, 009 01, 010 00, and 015 00. |
| A-A-42A (58536) | Talcum Powder (9 oz. Can) | Used with sealants to prevent sticking. Used in WP's 005 03 and 010 00. |
| A-A-883, TYPE 1, (58536) 1/4IN 1/2IN 3/4IN 1IN 2IN | Tape, Pressure Sensitive | General purpose tape. Used in WP's 003 00, 005 01, 005 03, 005 04, 008 00, 009 01, and 012 00. |
| AA1048TY1CL1 (58536) GRIT 80-9X11 GRIT 120-9X11 GRIT 180-9X11 GRIT 240-9X11 GRIT 300-9X11 GRIT 320-9X11 GRIT 400-9X11 GRIT 600-9X11 | Cloth, Abrasive | Clean corroded surfaces and feather sanding. Used in WP's 005 00, 007 00, 011 00, 012 00, and 015 00. |
| ADHESIVE 77 (52152) | Adhesive, Spray | Bonding. Used in WP005 02. |

Table 1. Corrosion Control Consumable Materials (Continued)

| Specification and CAGE | Nomenclature | Application |
|---|---|--|
| CCC-C-440 TYPE 1 CLASS 1 (81348) | Cheesecloth | Cleaning cloth. Used in WP's 005 01, 005 02, 005 03, 005 04, 006 00, 006 01, 007 00, 008 00, 009 00, 009 01, 010 00, 011 00, 012 00, and 015 00. |
| D 1153 (81346) | Methyl Isobutyl Ketone | Cleaning solvent. Used in WP's 005 01, 009 00, 011 00 and 012 00. |
| DS-108F (30256) | Solvent, Wipe | Cleaning Solvent. Used in WP's 005 01, 005 02, 005 03, 005 04, 006 00, 009 01, 011 00 and 012 00. |
| EA9321 A/B (33564) | Adhesive | Bonding. Used in WP's 005 03 and 005 04. |
| EA956 (33564) | Adhesive | Provides better adhesion of arc sprayed coating to surfaces. Used in WP009 01. |
| FP-100CM-36375 (60922) | Structure Repair Kit | Radome finish system. Used in WP015 00. |
| GG-D-226, TYPE 1 (81348) | Depressor, Tongue | Applicator. Used in WP005 02. |
| H-B-118 TY3CL2STC SZ 1/8 and 1/2 (81348) | Brush, Artist | Applicator. Used in WP015 00. |
| H-B-643, TYPE 2, CLASS 1 SIZE 1 and 2 (80244) | Acid Swab Brush | Applicator. Used in WP's 007 00 and 008 00. |
| H-B-695, TYPE1GRADEA SIZE 1/2 and 1 (81348) | Brush, Varnish | Applicator. Used in WP011 00. |
| LP378TY1CL1GRB FNSH1-0-004X50X96 (81348) | Plastic Sheet | Masking. Used in WP's 003 00, 006 00, 007 00, and 015 00. |
| M83953-1 and -2 (81349) | Pencil, Aircraft Marking (-1 Yellow, -2 Red) | Used to mark corrosion damaged areas. Used in WP005 00. |
| MIL-A-21380, TYPE 1, (81349) GRIT 80 GRIT 100 GRIT 120 GRIT 220 | Grain, Abrasive | Used as an additive in walkway coatings and vacu-blast. Used in WP's 005 01, 005 03, 009 01, 012 00, and 024 00. |
| MIL-A-131, CLASS 1 (81349) | Barrier Material | Masking. Used in WP005 02. |

Table 1. Corrosion Control Consumable Materials (Continued)

| Specification and CAGE | Nomenclature | Application |
|---|-------------------------------|--|
| MIL-B-15319TYPE1CLASS2, SIZE 1 (81349) | Brush, Painters | Applicator. Used in WP's 005 00, 007 00, and 012 00. |
| MIL-C-25769 (81349) | Cleaning Compound | Used as a neutralizing agent. |
| MIL-C-38736 TYPE 2 (81349) | Cleaning Compound | Metal cleaning. |
| MIL-C-81309 TY2CL2 (80244) | Corrosion Prevention Compound | Protects metal against corrosion. Used in WP's 005 00, 006 01 and 019 00. |
| MIL-C-81706, CLASS 1A, FORM 3 (81349) | Chemical Resistant Compound | Used in metal surface treatment. Used in WP008 00. |
| MIL-C-83286 (81349) | Aliphatic Polyurethane Enamel | Finish system. Used in WP's 012 00, 015 00, 018 00, 021 00, 024 00, 027 00, 030 00, 033 00, 036 00, 039 00, 042 00, 045 00, 046 00, and 047 00. |
| FED-STD-595 Color No. 11136, Red | Base Component | Applied to curing solution to provide applicable color for finish system. Used in WP018 00. |
| FED-STD-595 Color No. 12197, Orange | Base Component | Applied to curing solution to provide applicable color for finish system. Used in WP045 00. |
| FED-STD-595 Color No. 17038, Black | Base Component | Applied to curing solution to provide applicable color for trace coat. Used in WP015 00. |
| FED-STD-595 Color No. 17925, White | Base Component | Applied to curing solution to provide applicable color for finish system. Used in WP's 015 00, 018 00, 024 00, 027 00, 030 00, 033 00, 036 00, 042 00, and 045 00. |
| FED-STD-595 Color No. 35237, Gray | Base Component | Applied to curing solution to provide applicable color for finish system. Used in WP's 018 00 and 021 00. |
| FED-STD-595 Color No. 36231, Gray | Base Component | Applied to curing solution to provide applicable color for finish system. Used in WP021 00. |

Table 1. Corrosion Control Consumable Materials (Continued)

| Specification and CAGE | Nomenclature | Application |
|---|--|---|
| FED-STD-595 Color No. 36320, Gray | Base Component | Applied to curing solution to provide applicable color for finish system. Used in WP's 018 00, 021 00, 024 00, 027 00, 030 00, 033 00, 036 00, 039 00, 042 00, 046 00, and 047 00. |
| FED-STD-595 Color No. 36375, Gray | Base Component | Applied to curing solution to provide applicable color for finish system. Used in WP's 018 00, 021 00, 024 00, 027 00, 030 00, 033 00, 036 00, 039 00, 042 00, 046 00, and 047 00. |
| FED-STD-595 Color No. 36495, Gray | Base Component | Applied to curing solution to provide applicable color for finish system. Use in WP's 018 00, 024 00, 027 00, 030 00, 033 00, 036 00, 039 00, 042 00, 046 00, and 047 00. |
| FED-STD-595 Color No. 37038, Black | Base Component | Applied to curing solution to provide applicable color for finish system. Used in WP021 00. |
| MIL-C-85285, TY1 (81349) | Coating, Polyurethane, High Solids (Environmentally Compatible) | Coating used when environmental regulations restrict the use of MIL-C-83286. Used in WP's 012 00, 015 00, 018 00, 021 00, 024 00, 027 00, 030 00, 033 00, 036 00, 039 00, 042 00, 045 00, 046 00, and 047 00. |
| MIL-C-85570 TYPE1, CLASS 1 (81349) | Cleaning Compound | Used to clean contaminated surfaces. Used in WP012 00. |
| MIL-D-16791, TYPE 1 (81349) | Detergent, General | Cleaning. Used in WP012 00. |
| MIL-G-12223, TYPE 2 (81349) SMALL MEDIUM LARGE | Gloves, Toxicology | Personal protection. Used in WP's 005 00, 008 00 and 012 00. |
| MIL-G-5634, TYPE 3 (81349) | Grain, Abrasive | Used as non-slip material in walkway coating. Used in WP's 012 00 and 024 00. |
| MIL-G-9954 SZ10, SZ13 (81349) | Grain, Abrasive | Used as vacuum blasting material for corrosion removal. Used in WP005 00. |

Table 1. Corrosion Control Consumable Materials (Continued)

| Specification and CAGE | Nomenclature | Application |
|---|--|--|
| MIL-L-19538 (81349) FED-STD-595 Color No. 36081, Gray | Acrylic Lacquer | Used to apply alignment striping to aileron and outer wing hinge attach points. Used in WP027 00. |
| MIL-P-15035 TYFBG0 (81349) | Strip, Phenolic, Plastic | Used as a barrier material to form a groove in FIP seal for EMI gasket. Used in WP005 02. |
| MIL-P-23377 TY1 (81349) | Primer (Aluminized, Blue-Green) | Interior surface primer. Used in WP's 011 00, 015 00, 018 00, 019 00, 021 00, 024 00, 030 00, 033 00, 036 00, 039 00, and 042 00. |
| MIL-P-23377 TY2 (81349) | Primer | Aircraft mold line primer. Used in WP's 011 00, 015 00, 018 00, 021 00, 024 00, 027 00, 030 00, 033 00, 036 00, 039 00, 042 00, 046 00, and 047 00. |
| MIL-P-85582, TY1CL1 or TY1CL2 (81349) | Primer (Environmentally Compatible) | Used when environmental regulations restrict the use of MIL-P-23377, TY1, CL1 primer. Used in WP's 011 00, 015 00, 018 00, 019 00, 021 00, 024 00, 030 00, 033 00, 036 00, 039 00, and 042 00. |
| MIL-P-85582, TY2 CL1 (81349) | Primer (Environmentally Compatible) | Used when environmental regulations restrict the use of MIL-P-23377, TY2, CL1 primer. Used in WP's 011 00, 015 00, 018 00, 021 00, 024 00, 027 00, 030 00, 033 00, 036 00, 039 00, 042 00, 046 00, and 047 00. |
| MIL-R-81294 TY1 (81349) | Paint Remover | Used to remove finish system from metal surfaces. Used in WP007 00. |
| MIL-S-83430 (81349) CLA-1/2 CLB-1/2 CLB-4 | Sealing Compound | General sealing compound used in various applications. Used in WP's 005 01, 005 02, 005 03, 010 00, 012 00, 015 00, and 019 00. |
| MIL-T-21595 TYPE 1 (81349) | Tape, Pressure Sensitive | Masking. Used in WP005 02. |
| MIL-T-23397 TY2 (81349) | Tape, Pressure Sensitive | Masking. Used in WP's 003 00 and 006 00. |

Table 1. Corrosion Control Consumable Materials (Continued)

| Specification and CAGE | Nomenclature | Application |
|---------------------------------------|---|--|
| MIL-T-81772 (81349) TY1 or TY2 | Aliphatic Thinner | Used to thin primer and polyurethane coatings. Used in WP's 011 00 and 012 00. |
| MILA9962TY1CL1 GRAX9X11 (81349) | Mat, Abrasive | Used to remove corrosion. Used in WP's 005 00, 005 02, 006 00, 007 00, 008 00, 009 01, 010 00, and 012 00. |
| MMS455 (76301) | Korotherm Kit | Fire barrier material. Used in WP009 00. |
| NO. 86 (52152) | Adhesion Promoter | Improves the adhesion of tape. Used in WP012 00. |
| PR-182 (0NYS9) | Primer, Sealing Compound | Improves bonding surface for FIP seal. Used in WP's 005 02 and 010 00. |
| Q4-2817 (71984) | Florosilicone Sealant (8oz. Container) | Used to bond EMI gasket into FIP seal. Used in WP005 02. |
| QQ-T-371 GRADE A (81348) | Tin, Pig (Tin/Zinc, 20-80) | Metal used in arc spray. Used in WP's 005 01, 005 02, 005 03, 005 04, and 009 01. |
| RYMPLE CLOTH-301- PURIFIED (97327) | Cloth, Cleaning | Used to wipe materials from aircraft surfaces. Used in WP's 005 02 and 010 00. |
| S-115/2IN (4Y029) | Tape, Teflon | Used as a release material to prevent FIP seal from adhering to doors. Used in WP's 005 02 and 010 00. |
| TT-I-735, GRADE A (81348) | Isopropyl Alcohol | Cleaning solvent. Used in WP015 00. |
| TT-I-735, GRADE B (81348) | Isopropyl Alcohol | Cleaning solvent. Used in WP005 04. |
| TT-N-95, TYPE 2 (81348) | Aliphatic Naphtha | Cleaning solvent. Used in WP012 00. |
| TT-T-548 (81348) | Toluene, Technic (3oz. can) | Finish system thinner. Used in WP012 00. |
| VV-P-236 (81348) | Petrolatum | Parting agent. Used in WP's 005 02, 005 03, and 010 00. |

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

CORROSION INSPECTION AND REMOVAL

This WP supersedes WP005 00, dated 1 August 1997.

Reference Material

| | |
|--|------------------|
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Plane Captain Manual | A1-F18AC-PCM-000 |

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Correct detailed corrosion inspections, followed by repair actions, are required to prevent serious corrosion damage to aircraft and equipment. Extreme conditions of humidity, temperature, and atmospheric conditions, because of location, affect frequency of corrosion inspections. Materials subject to corrosion require special attention, not only during scheduled inspections, but continuously.

3. GENERAL INFORMATION.

NOTE

Corrosion control personnel should become familiar with NAVAIR 01-1A-509 corrosion control program.

a. Corrosion inspection and removal depends on cleanliness. Area or part being inspected shall be

thoroughly cleaned, because dirt and other residue mask corrosion at fasteners, skin splices, joints, and similar areas.

b. Be sure all drain holes remain open during cleaning.



Corrosion removal can cause severe damage to nonmetallic assemblies. These assemblies do not receive corrosion removal and shall be masked.

c. All corrosion is removed mechanically. Make sure only the corrosion products are removed. Avoid removal of base material.

d. The mechanical method of removing corrosion is done by using abrasive cloth, abrasive mat, rotary fiber brush, or vacu-blasting.

e. When removing corrosion, do only a few areas at a time. Protect areas with a thin film of corrosion preventive compound. This material can be wiped off quickly with solvent before chemical treatment.

f. When using a portable dry honing (vacu-blast) machine for corrosion removal, abrasive grain material shall be used.

g. When vacu-blasting, be sure there are no open fuel/hydraulic systems.

h. Protect nearby areas to prevent additional corrosion damage from corrosion products removed during mechanical removal.

i. Sheet metal, thinner than 0.025, shall not be vacu-blasted without engineering approval.

4. SAFETY PRECAUTIONS.

a. Ground aircraft (A1-F18AC-PCM-000).

b. When operating a vacu-blast machine, a respirator shall be worn.

c. Avoid breathing solvent vapors. If bad ventilation is obvious, use a respirator.

d. Spark producing electrical equipment shall not be used on aircraft.

e. No smoking, food, or drink are allowed in corrosion control area.

f. Goggles/faceshield shall be used during corrosion removal procedures.

g. Do not exceed specific rotary fiber brush speed of 3200 rpm.

h. Abrasive grain is very slippery and may cause dangerous falls. After blasting, they shall be completely removed from floor, deck, or work areas.

i. Vacu-blast honing machine shall be operated by trained personnel only.

5. INSPECTION FOR CORROSION.

Support Equipment Required

None

Materials Required

| Specification or Part Number | Nomenclature |
|---|---|
| M83953-1 or -2 MIL-G-12223, TYPE 2, SMALL TYPE 2, MEDIUM TYPE 2, LARGE | Pencil, Aircraft Marking Gloves, Toxicology |

a. The first step in good corrosion inspection is to know and recognize the types of corrosion (NAVAIR 01-1A-509).

b. Corrosion prone areas unique to this aircraft are identified in specific procedure work packages. These work packages provide a description of the suspect area, types of metal affected, type of corrosion, and contributing factors. Inspection is aided by using a flashlight, inspection mirror, and magnifying glass.

c. Mark all corrosion areas detected using a aircraft marking pencil. Typical corrosion locations are listed below:

(1) Lap joints, faying surfaces, butt joints, and area around fasteners.

(2) Drain holes.

(3) Exposed door, windshield or canopy frames, fairings, and compound parts.

(4) Piano or other hinge.

(5) Areas subject to weapon blasts or exhaust gases.

(6) Spotweld areas.

(7) Wheelwells, landing gear, arresting hook, and launch bar. Give specific attention to area around bolt heads, lugs, lockrings, and web of wheels; exposed plumbing hardware; crevices

between stiffeners, ribs, and lower skin surfaces; attach fittings; exposed position indicator switches, springs, electrical connectors, valves, and miscellaneous equipment.

(8) Areas around antenna, radomes, and external lights; primarily those installed on lower or under surfaces of fuselage.

(9) Air intakes and vents.

(10) Control surface attach fittings for stress cracks or corrosion.

(11) All areas where dissimilar metals are in contact or next to each other.

(12) Surfaces subject to wear and abrasive operating conditions.

(13) Surfaces near installed bushings.

(14) Control system linkages and bearings.

(15) Hydraulic line mounting clamps.

(16) Components mounted on parts fabricated from graphite epoxy.

6. CORROSION REMOVAL. Primary consideration in removing corrosion products is that removal must be complete. Failure to clean all residue allows the corrosion to continue even after affected areas are refinished. Mechanical corrosion removal is effective and nondestructive when done correctly. Mechanical method used depends on alloy, location, degree or amount, and type of corrosion to be removed. For more related corrosion removal instructions (NAVAIR 01-1A-509).

Support Equipment Required

| Part Number or Type Designation | Nomenclature |
|---------------------------------|-----------------------------|
| — | Portable Dry Honing Machine |
| — | Air Driven, Drill Motor |

Materials Required

| Specification or Part Number | Nomenclature |
|---------------------------------|-------------------------------|
| MIL-G-9954 SZ10 or SZ13 | Grain, Abrasive |
| AA1048TY1CL1 GRIT320X9X11 | Cloth, Abrasive |
| MILA9962TY1CL1 GRAX9X11 | Mat, Abrasive |
| 61-7715-5408-8 | Brush, Fiber, Rotary |
| 61-7715-5507-7L | Brush, Fiber, Rotary |
| MIL-B-15319TYPE1 CLASS2SIZE1 | Brush, Painters |
| MIL-C-81309 TY2CL2 | Corrosion Preventive Compound |

a. Mechanical methods are listed below:



Corrosion removal can cause severe damage to nonmetallic assemblies. These assemblies do not receive corrosion removal and shall be masked.

- (1) Dry, painter brush.
- (2) Abrasive cloth.
- (3) Abrasive mats.
- (4) Rotary fiber brush.

WARNING

Respirator and faceshield shall be worn when operating dry honing machine (vacu-blast).

- (5) Vacu-blast honing machine using abrasive grain only.

WARNING

Corrosion preventive compound is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

b. Protect bare exposed metallic surfaces by applying corrosion preventive compound.

DEPOT MAINTENANCE**AIRCRAFT CORROSION CONTROL****REMOVAL AND CLEANUP OF SILVER FILLED EPOXY ADHESIVE FROM NOSE RADAR FORMER
Y128.500**

Reference Material

| | |
|--|------------------|
| Aircraft Fuel Cells and Internal/External Tanks..... | NAVAIR 01-1A-35 |
| Fuel System | A1-F18AC-460-300 |
| Ground Support Equipment | WP009 01 |
| Fuel System | A1-F18AE-460-300 |
| Ground Support Equipment | WP010 00 |
| Plane Captain Manual | A1-F18AC-PCM-000 |
| Line Maintenance Access Doors..... | A1-F18AC-LMM-010 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application | WP011 00 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Cleaning..... | WP006 00 |
| Chemical Treatment..... | WP008 00 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Nose Barrel Finish System and Markings | WP018 00 |
| Radar System | A1-F18AC-742-300 |
| Extension and Stowage of Radar Set AN/APG-65 and Panel Screw Assembly Repair Radar System | WP003 00 |

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. On 161352 THRU 161966, galvanic corrosion is being detected on 7075-T7351 aluminum alloy nose radome former. Corrosion is caused by Eccobond 56C silver filled adhesive (Eccobond adhesive) holding the titanium EMI rub strips to nose radome former. All traces of Eccobond adhesive must be removed.

3. SAFETY PRECAUTIONS.

a. Make sure aircraft is defueled and systems purged.

(1) Defuel aircraft (A1-F18AC-PCM-000).

(2) Drain residual fuel
(A1-F18AC-PCM-000).

(3) Do purging and inerting methods
(NAVAIR 01-1A-35).

(4) Purge and inert fuel cells until a safe indication is displayed on combustible and toxic gas indicator (A1-F18AC-460-300, WP009 01 or A1-F18AE-460-300, WP010 00).

b. No smoking allowed in repair area.

c. Dispose of all used rags or other materials in safety disposal containers.

d. The arc spray gun shall never be pointed towards personnel or combustible materials.

e. The arc from arc spray gun shall not be viewed with unshielded eye.

f. Ventilation shall be provided to quickly remove all dust and fumes from the area.

g. Respirator shall be worn during vacu-blast and arc spray operation.

h. Eye protection is required when vacu-blast and arc spray equipment is used.

i. No food or drink shall be allowed in work area.

4. PROCEDURES.**Support Equipment Required**

| Part Number or Type Designation | Nomenclature |
|---------------------------------|-----------------------------|
| GGG-M-125/6 | Respirator With Cartridge |
| — | Portable Dry Honing Machine |
| Model No. 375 | Electric Arc Spray System |
| — | Wire Brush, Stainless Steel |
| 74D740001-1001 | Antenna Cover |

Materials Required

| Specification or Part Number | Nomenclature |
|-------------------------------|----------------------------|
| QQ-T-371 GRADE A | Tin, Pig (Tin/Zinc, 20-80) |
| MIL-T-21595 TYPE 1 | Tape, Pressure Sensitive |
| 855-1.000IN. | Tape, Pressure Sensitive |
| 250-1IN | Tape, Pressure Sensitive |
| A-A-203 | Paper, Kraft, Untreated |
| MIL-A-21380, TYPE 1, GRIT 120 | Grain, Abrasive |
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| TT-I-735, GRADE B | Isopropyl Alcohol |
| A-A-1047 GRIT 180-9X11 | Paper, Abrasive |
| 400-9X11 | |
| 61-7715-5507-7L | Brush, Fiber, Rotary |

5. REMOVAL OF TITANIUM RUB STRIPS.

a. Open door 1, radome (A1-F18AC-LMM-010).

- b. Install antenna cover on antenna.
- c. Extend radar set to expose titanium rub strips (A1-F18AC-742-300, WP003 00).



Make sure radar set is thoroughly double masked. Damage to radar set will occur if elements from vacu-blast or arc spray are allowed to penetrate masking.

d. Double mask radar set using untreated kraft paper and MIL-T-21595 adhesive tape.

e. Cover all fastener holes on nose radar former using MIL-T-21595 adhesive tape.

f. Mask aft side of nose radar former covering all areas where Eccobond adhesive particles could enter using untreated kraft paper and MIL-T-21595 adhesive tape.

g. Pull titanium rub strips loose from Eccobond adhesive on nose radar former Y128.500. See figure 1.

6. SURFACE PREPARATION.



Make sure all remnants of Eccobond adhesive are removed. Any remaining residue will cause further corrosion.

a. Remove major portion of Eccobond adhesive from nose radome former using rotary fiber brush with drill motor. See figure 2 for tolerances.

NOTE

Corrosion damage deeper than tolerances specified on figure 2 requires engineering disposition.

b. Clean up any remaining Eccobond adhesive from nose radome former by sanding with 180 grit abrasive paper or brushing with stainless steel wire brush.

c. Vacuum clean any loose Eccobond adhesive particles.

7. APPLICATION OF TIN/ZINC ARC SPRAY.



Isopropyl alcohol is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

a. Clean area to be arc sprayed by wiping with clean cheesecloth moistened with isopropyl alcohol.

b. Continue wiping until no residue appears on cheesecloth.

c. Wipe dry with clean dry cheesecloth.

d. Mask areas not receiving vacu-blast and arc spray coating using 250-1 inch pressure sensitive tape and untreated kraft paper. See figure 3.



Avoid contaminating vacu-blast surface with vacuum hoses and cables. Tin/zinc coating will not bond to contaminated surfaces.

e. Vacu-blast areas to receive arc spray.

(1) Set nozzle pressure at 70 PSI.

(2) Hold blast nozzle 6 to 8 inches from part.



The use of unclean abrasive grain grit will weaken tin-zinc coating bond.

(3) Vacu-blast using 120 grit abrasive grain. Fan nozzle completely over nose radome former until a dull, uniform appearance is established.

(4) Vacuum clean any particles remaining on repair area.

WARNING

Isopropyl alcohol is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(5) Clean excessively dusty or contaminated vacu-blast surfaces with clean cheesecloth moistened with isopropyl alcohol.

(6) Wipe dry with clean dry cheesecloth.

NOTE

A maximum of 2 hours is allowed to apply tin/zinc arc spray once surface has been vacu-blast. If more than 2 hours, vacu-blast procedures must be repeated.

f. Apply tin/zinc arc spray within 2 hours after vacu-blast.

(1) Carefully apply 855-1.000 inch pressure sensitive tape at 3 separate locations along periphery of area to be arc sprayed for later coating thickness measurements. See figure 3.

WARNING

The arc spray is an electrically initiated coating and sparks are generated inside gun and is a fire risk. Make sure safety precautions, paragraph 3, step a, substeps (1), (2), (3) and (4) has been complied with.

CAUTION

Avoid contaminating vacu-blast surface with arc spray cables. Tin/zinc coating will not bond to contaminated surfaces.

(2) Hold arc spray gun 6 to 12 inches from part.

NOTE

Spray tin/zinc coating so a progressive build-up occurs over complete surface of part designated for coating.

(3) Move arc spray gun across area to be sprayed at approximately 15 inches per second.

(4) Overlap each coat by 1/3 of band width.

(5) Remove any unusual roughness from sprayed surface by sanding lightly with 400 grit abrasive paper.

(6) Vacuum clean any metal dust remaining from arc spray operation.

g. Peel tin/zinc coating from 855 -1.000 inch pressure sensitive tape at one of three locations for a thickness measurement.

NOTE

If arc spray coating is too thin, apply one more coat within 30 minutes of first application.

h. Measure arc spray coating. Thickness shall be 0.008 ± 0.004 inches.

i. Measure thickness of arc spray coating from remaining tape locations per steps g and h.

j. If cracks or blisters develop in coating during spray operation, repair damaged areas.

(1) Lightly hand sand damaged area using 180 grit abrasive paper to remove defective tin/zinc coating. Bevel edges of tin/zinc surrounding area to be resprayed.

(2) Remove sanding residue by wiping with clean cheesecloth.

NOTE

Respray must be within 30 minutes of first application. Resprayed areas do not require thickness check.

(3) Apply tin/zinc coating per paragraph 7, step f, substeps (2) through (6).

k. Check adhesion of tin/zinc coating at a minimum of four separate locations.

NOTE

Recommended length of tape is approximately 8 inches. Size tape accordingly to areas where part will not allow this contact length.

(1) Apply 8 inch strip of 250 -1 inch pressure sensitive tape to tin/zinc coating.

(2) Press pressure sensitive tape on tin/zinc coating using firm hand pressure to establish good adhesion.

(3) Lift one end of pressure sensitive tape approximately 2 inches.

(4) With lifted end of pressure sensitive tape at 45° to surface, remove remainder of pressure sensitive tape with one abrupt motion.

NOTE

Area shall be considered to have failed adhesion test if tin/zinc coating is removed from an area larger than 1 square inch.

(5) Inspect surface for any removal of tin/zinc coating.

NOTE

Use new 250 -1 inch pressure sensitive tape with each tape pull.

(6) If tin/zinc coating is removed from an area 1 square inch or less, do three more tape pulls. Rotate tape 60° after each pull across edge of failed area.

NOTE

Area is considered a localized failure if no more tin/zinc coating was removed during retest.

(7) Touch up localized failed areas 1 square inch or less per paragraph 7, step j, substeps (1) through (3).

(8) If more than 1 square inch of failed area exists, repeat paragraph 7, steps e through k.

1. Remove pressure sensitive tape and untreated kraft paper used in masking procedures, paragraph 7, step d.

8. **APPLICATION OF FINISH SYSTEM.** See figure 4.

a. Clean areas on nose radome former receiving finish system. Do solvent cleaning procedures (WP006 00).

NOTE

Do not apply chemical treatment to tin/zinc coated surfaces.

b. Apply chemical treatment to any bare exposed metal surfaces on nose radome former (WP008 00).

c. Apply primer to nose radome former slightly overlapping edge of tin/zinc arc spray coating. For primer preparation, application, and type (WP011 00 and WP018 00).

d. Apply polyurethane top coat over primed surfaces. For polyurethane preparation, application, color, and number of coats (WP012 00 and WP018 00).

e. Remove masking material from radar set.

f. Stow radar set (A1-F18AC-742-300, WP003 00).

g. Remove antenna cover.

h. Close door 1, radome (A1-F18AC-LMM-010).

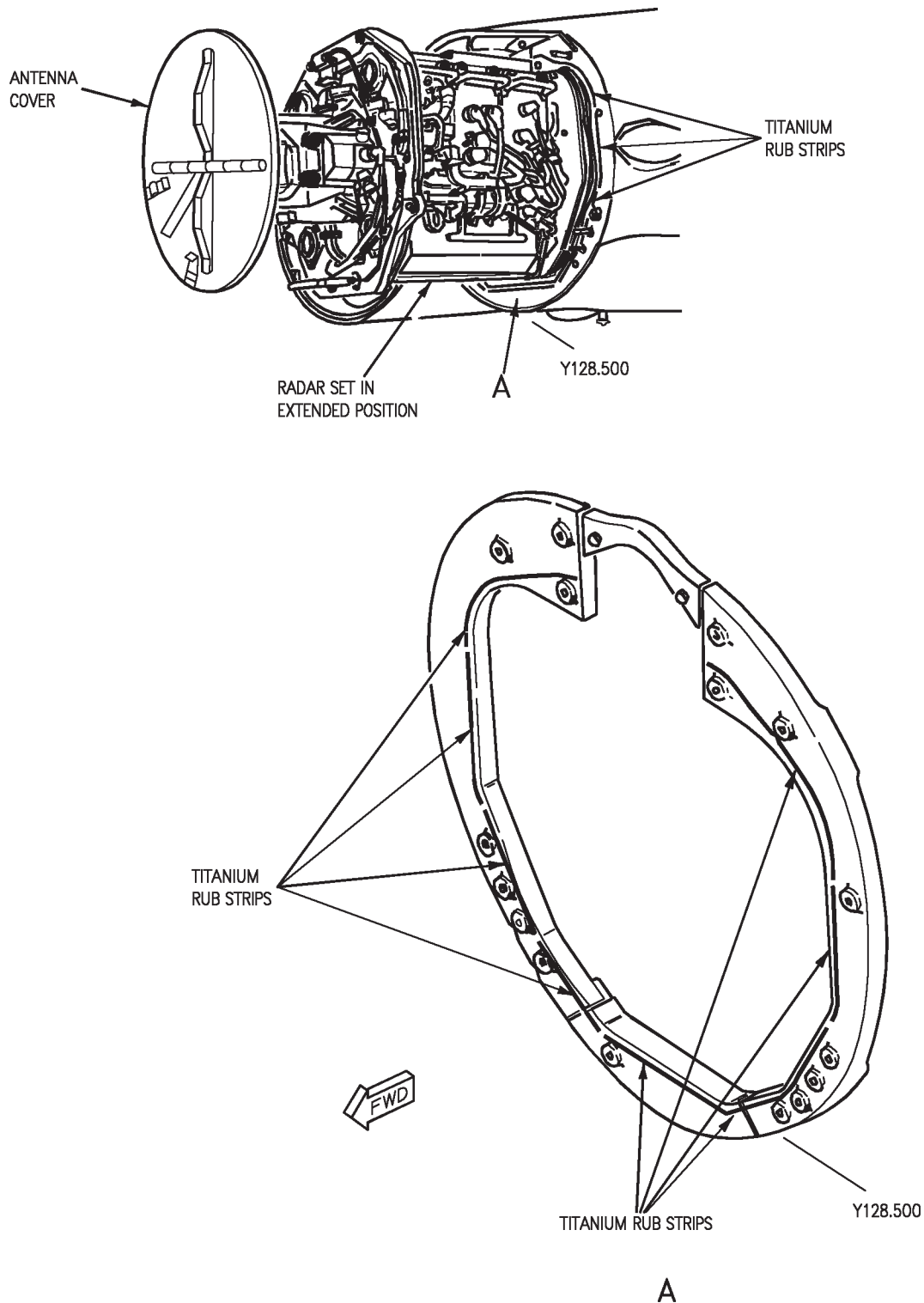


Figure 1. Removal of Titanium Rub Strips

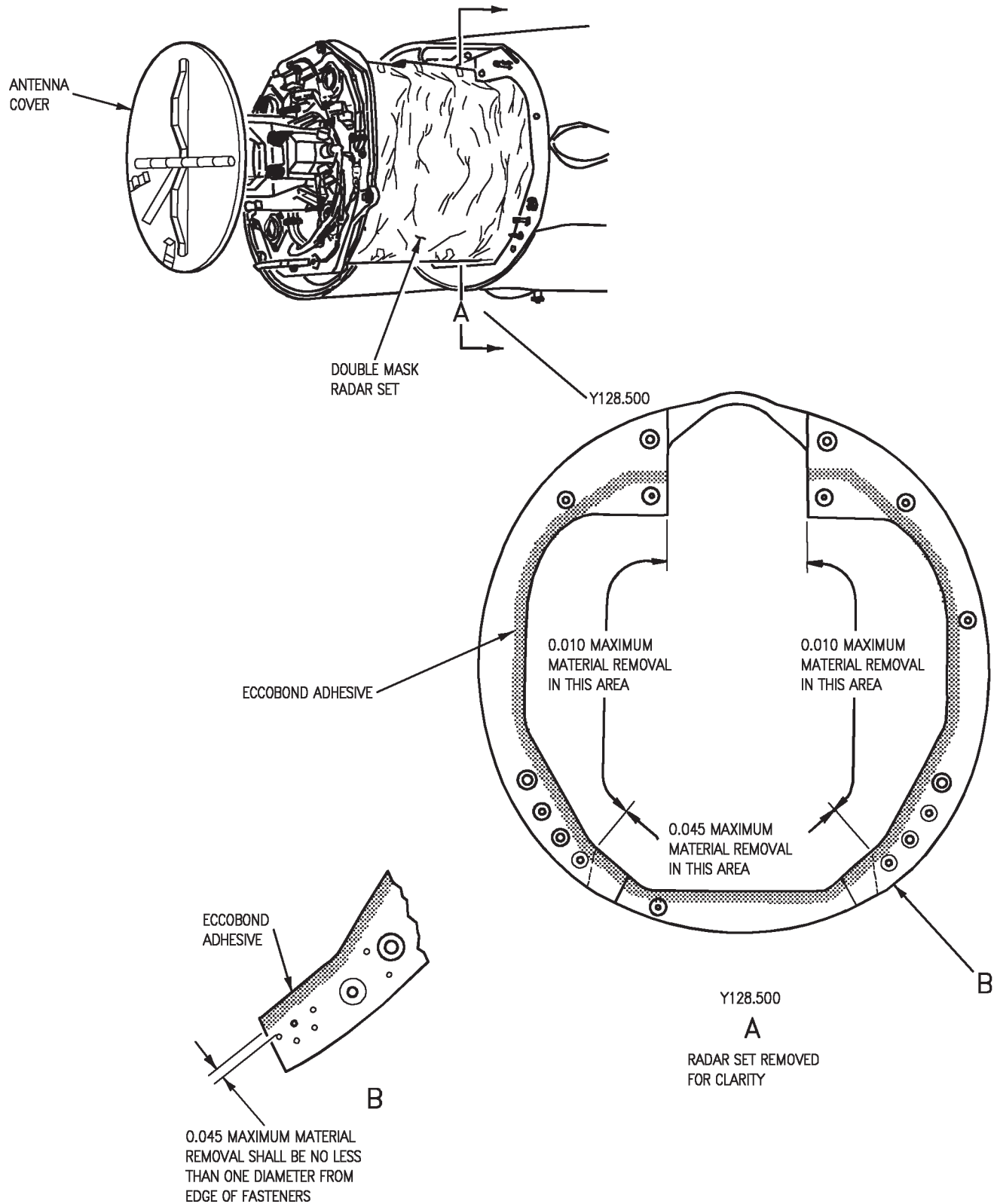


Figure 2. Surface Preparation

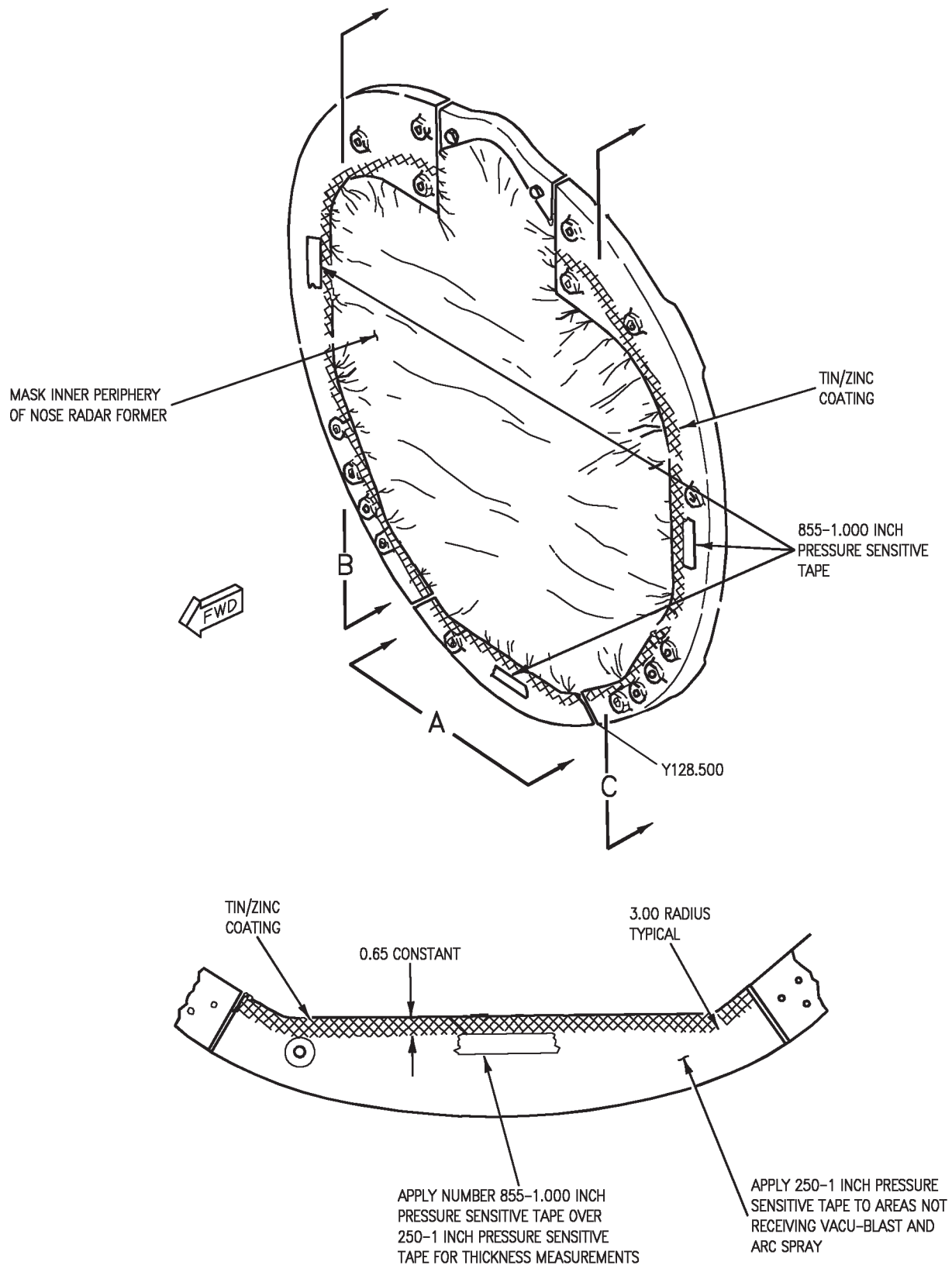


Figure 3. Application of Tin/Zinc Arc Spray (Sheet 1)

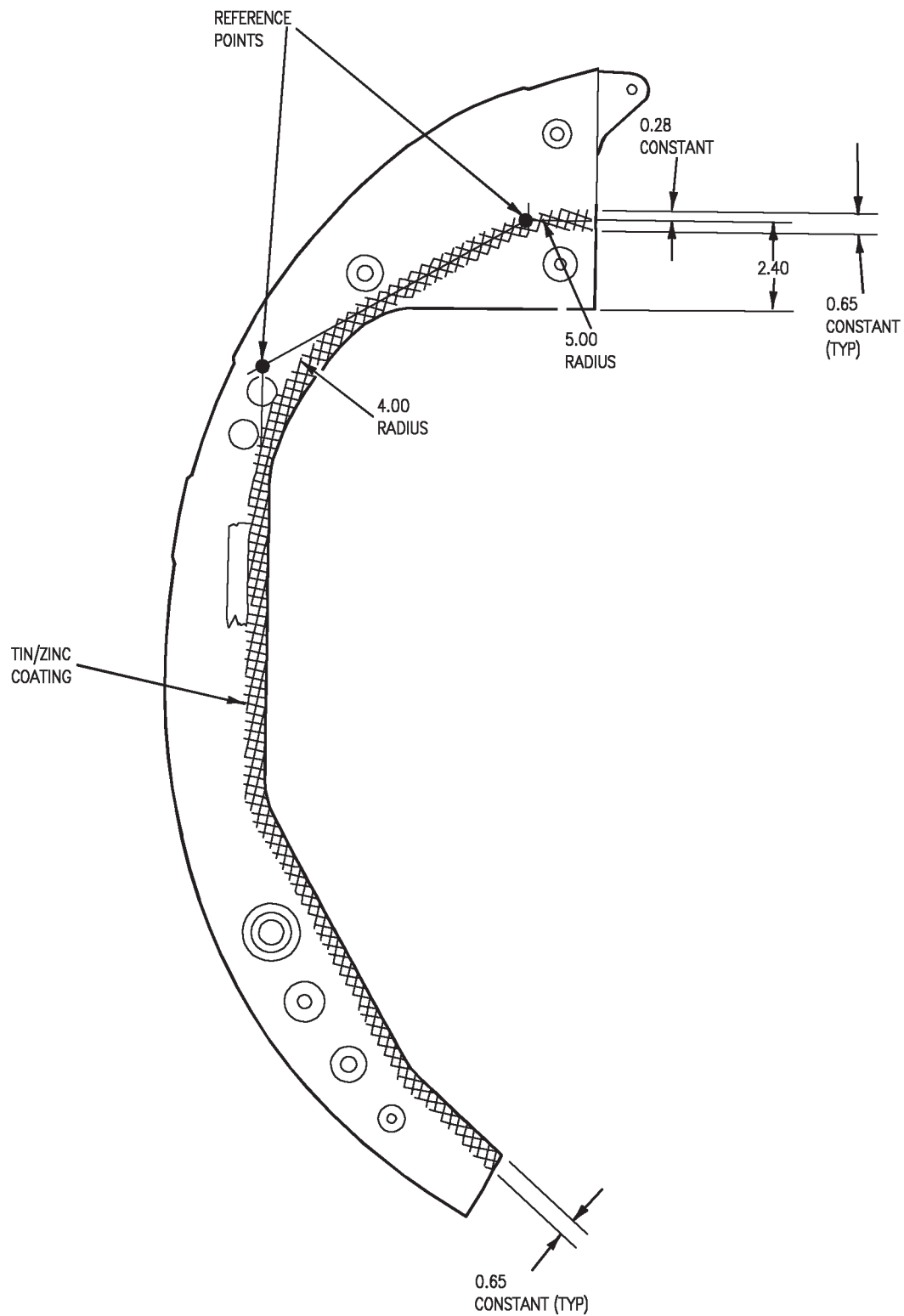
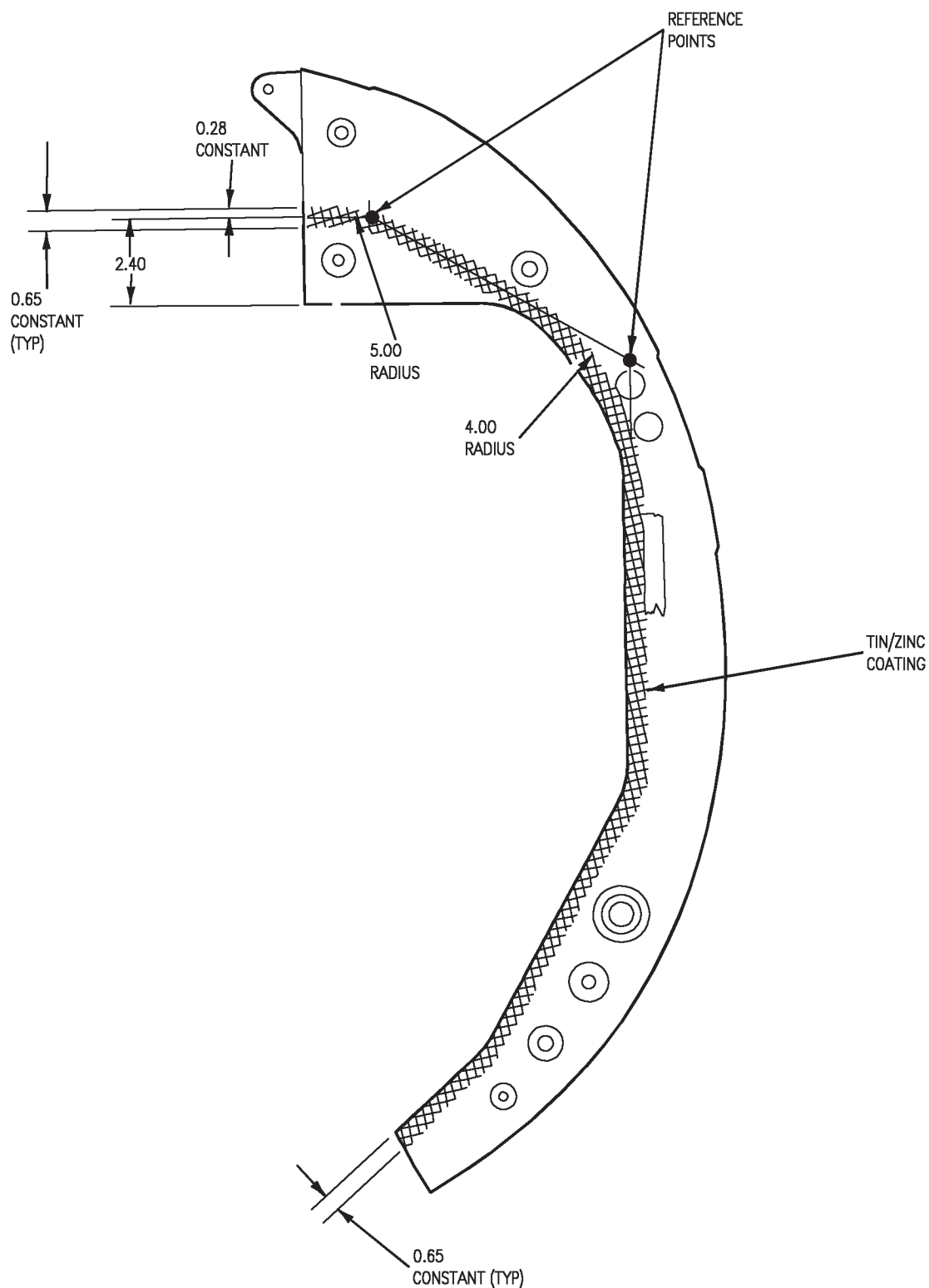


Figure 3. Application of Tin/Zinc Arc Spray (Sheet 2)



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Figure 3. Application of Tin/Zinc Arc Spray (Sheet 3)

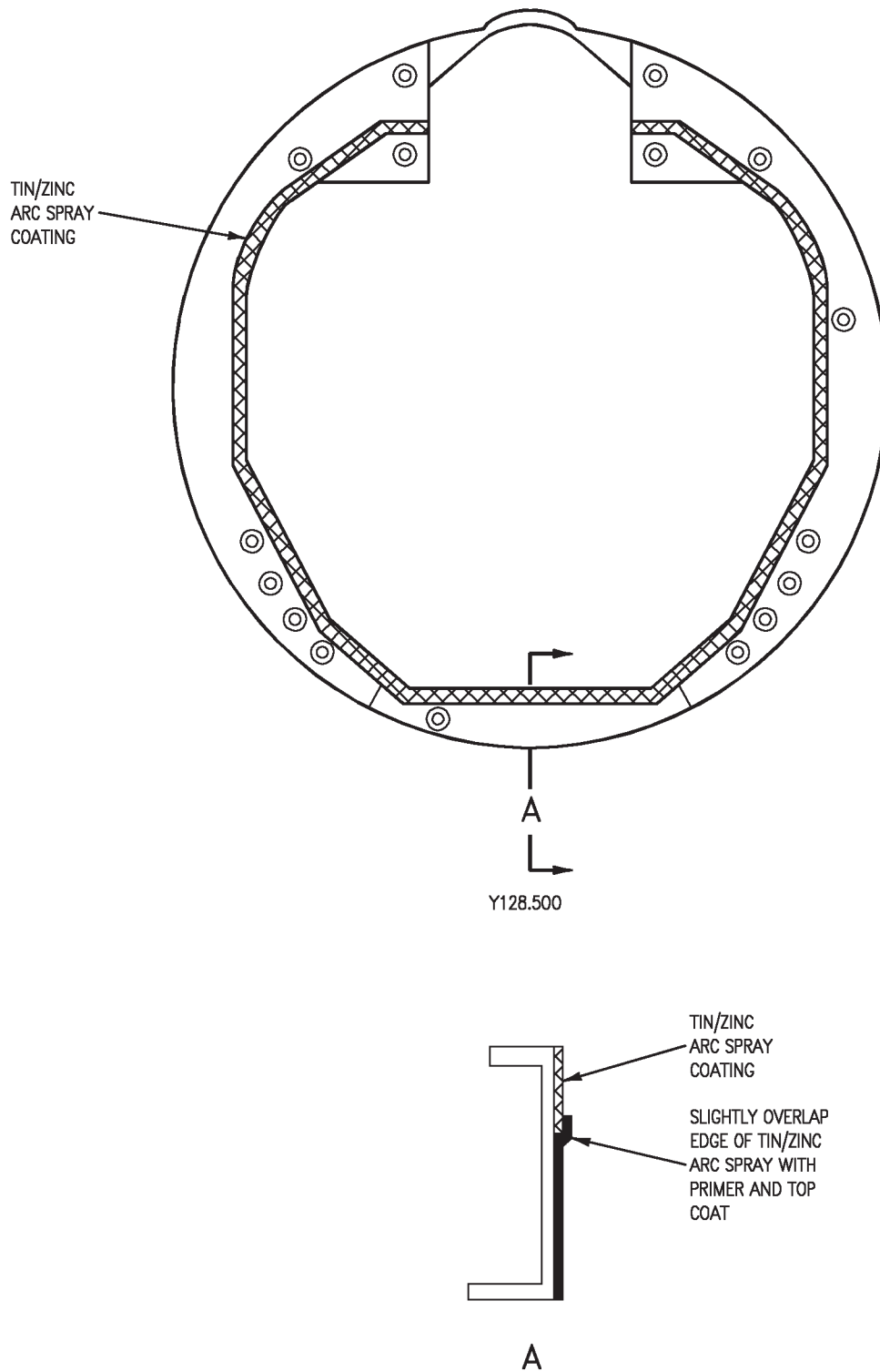


Figure 4. Application of Finish System

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FORM IN PLACE SEALING WITH EMI GASKET

Reference Material

| | |
|--|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Chemical Treatment..... | WP008 00 |
| Form In Place Sealing..... | WP010 00 |
| Priming Procedures | WP011 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| In-Service Tolerances | WP008 00 |
| Adhesive, Cement, and Sealant; Preparation and Application | WP011 00 |
| Line Maintenance Access Doors..... | A1-F18AC-LMM-010 |

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

EMI gasket is flush with or below the form in place seal.

2. Doors 18, 26, 31, 40, 43, and 49 have a form in place seal (gray) with an integral EMI gasket (blue) bonded into a groove in the form in place seal using fluorosilicone sealant (red).

5. FORM IN PLACE SEAL NEGLIGIBLE DAMAGE.

Voids or bubbles 0.200 inch or less in diameter located at least 0.200 inch from seal edge.

3. DAMAGE EVALUATION.

6. EMI GASKET NEGLIGIBLE DAMAGE.

4. Damage is defined as splits, tears, cuts or missing material within the form in place seal; within EMI gasket itself; within fluorosilicone sealant; and between the EMI gasket and adjacent fluorosilicone sealant. Damage is also considered to be when the

a. Damaged EMI gasket length does not exceed 1 inch in length.

b. Total damaged area does not exceed 25 % of the length of EMI gasket contact area.

7. FORM IN PLACE SEAL DAMAGE LESS THAN 0.80 INCH.

8. Damage to form in place seal, fluorosilicone sealant, and EMI gasket is repaired by filling damaged area with fluorosilicone sealant. Multiple damages may be repaired if combined total of all damaged surfaces does not exceed 25 % of the length of EMI gasket contact area. See figure 1.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification or Part Number

Nomenclature

| | |
|-----------------------------|--|
| Q4-2817 | Sealing Compound (Fluorosilicone Sealant) |
| MILA9962TY1CL1 GRAX9X11 | Mat, Abrasive |
| MIL-B-131, Class 1 | Barrier Material |
| MIL-T-21595 TYPE 1 | Tape, Pressure Sensitive |
| DS-108F 5772 048 | Solvent, Wipe Cleaning Compound |
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| PR-182 | Primer, Sealing Compound |

CAUTION

Use of metal or abrasive cutting tools may cause structure damage. Use only non-metallic tools when scraping or trimming to prevent damage to structure.

a. Trim damaged section of form in place seal, fluorosilicone sealant, and EMI gasket.

b. Remove damaged section using plastic scraper.

c. Remove any residual form in place seal, fluorosilicone sealant, and EMI gasket using abrasive mat.

d. Clean up all loose debris.

e. Inspect repair area surface for corrosion. If corrosion is found, a depot engineering disposition is required.

f. Mask surfaces adjacent to repair area using barrier material and MIL-T-21595 tape.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

g. Clean repair area with clean cheesecloth moistened with solvent or cleaning compound.

h. Wipe surface dry with clean dry cheesecloth before solvent or cleaning compound evaporates. Allow to air dry for 15 minutes.

i. Chemical treat all exposed aluminum surfaces in repair area (WP008 00).

j. If primer coat was damaged, touch up as required. For primer preparation and application (WP011 00).

k. Apply MIL-T-21595 tape to adjacent form in place seal and EMI gasket.

l. Clean repair area using clean cheesecloth moistened with solvent or cleaning compound.

m. Wipe surface dry with clean dry cheesecloth before solvent or cleaning compound evaporates. Allow to air dry for 15 minutes.

n. If form in place seal was damaged in an area other than EMI gasket contact area, repair form in place seal (WP010 00).

WARNING

Primer causes eye, skin burns. May cause allergic skin reaction. May cause eye, skin and respiratory irritation. Do not get in eyes, on skin, or on clothing. Avoid breathing dust (vapor, mist, gas). Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

o. Apply primer to area receiving fluorosilicone sealant.

WARNING

Q4-2817 fluorosilicone sealant is toxic. Wash hands thoroughly prior to eating, drinking, or smoking.

NOTE

Working time for Q4-2817 fluorosilicone sealant is 10 minutes.

p. Trowel sealant in repair area to match contour of adjacent form in place seal.

q. Allow sealant to cure 5 hours.

r. Remove tape applied in step k.

s. Remove masking.

t. Install door (A1-F18AC-LMM-010).

9. EMI GASKET REPLACEMENT.

10. Damaged section of EMI gasket may be replaced if groove in form in place seal is not damaged. See figure 2.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification or Part Number

Nomenclature

| | |
|--|---|
| Q4-2817 | Sealing Compound (Fluorosilicone Sealant) |
| MILA9962TY1CL1 GRAX9X11 | Mat, Abrasive |
| MIL-B-131, Class 1 MIL-T-21595 TYPE 1 | Barrier Material Tape, Pressure Sensitive |
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| S-115/2IN 10-04-1720-1287 | Tape, Teflon EMI Gasket, 0.103 Inch Dia |
| 10-04-2862-1287 | EMI Gasket, 0.130 Inch Dia |
| 10-04-3231-1287 | EMI Gasket, 0.160 Inch Dia |
| PR-182 | Primer, Sealing Compound |
| DS-108F 5772 048 | Solvent, Wipe Cleaning Compound |
| GG-D-226 TYPE 1 RYMPLE CLOTH- 301-PURIFIED | Depressor, Tongue Cloth, Cleaning |

CAUTION

Use of metal tools may cause structure damage. Use only non-metallic tools when scraping or trimming to prevent damage to structure.

NOTE

Do not remove form in place seal. If form in place seal was damaged during the removal of EMI gasket and fluorosilicone sealant, repair per paragraph 7 or 11.

a. Trim EMI gasket 0.50 inch past each end of damaged section.

b. Remove damaged section using plastic scraper.

c. Remove any residual EMI gasket and fluorosilicone sealant using abrasive mat.

d. Clean up all loose debris.

e. Inspect groove area in form in place seal for corrosion. If corrosion is found, a depot engineering disposition is required.

f. Mask surfaces adjacent to repair area using barrier material and MIL-T-21595 tape.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

g. Clean groove area in form in place seal using clean cheesecloth moistened with solvent or cleaning compound, detail A.

h. Wipe groove area dry with clean dry cheesecloth before solvent or cleaning compound evaporates. Allow to air dry for 15 minutes.

i. Chemical treat aluminum surface in groove area in form in place seal. For chemical conversion surface treatment (WP008 00).

j. Apply S-115 teflon tape to surface of door contacting form in place seal and EMI gasket:

(1) Wrap tape around bottom and edge of door.

(2) Secure tape in place using MIL-T-21595 tape.

(3) Make sure S-115 teflon tape on inner edge of door is free of wrinkles.

k. Measure depth of groove in form in place seal.

NOTE

Repair EMI gasket diameter may vary from existing gasket diameter.

l. Determine EMI gasket to be installed based on groove depth per Table 1.

m. If required for larger EMI gasket, trim equal amount of form in place sealant from each side of groove. See Table 1.

n. Cut new EMI gasket to required length to butt against adjacent EMI gasket, detail B.

o. Scuff surface of form in place seal around repair area using abrasive mat.

p. Clean groove area aluminum surface, form in place seal, and new EMI gasket with clean cheesecloth moistened with solvent or cleaning compound.

q. Wipe surfaces dry with clean dry cheesecloth before solvent or cleaning compound evaporates. Allow to air dry for 15 minutes.

WARNING

Primer causes eye, skin burns. May cause allergic skin reaction. May cause eye, skin and respiratory irritation. Do not get in eyes, on skin, or on clothing. Avoid breathing dust (vapor, mist, gas). Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

r. Apply primer to the following areas:

(1) Exposed aluminum surface in the form in place seal groove.

(2) Face and groove sides of form in place seal in the repair area.

(3) Allow primer 5 minutes, before wiping dry with a clean, dry cheesecloth.

WARNING

Q4-2817 fluorosilicone sealant is toxic. Wash hands thoroughly prior to eating, drinking, or smoking.

NOTE

Working time for Q4-2817 fluorosilicone sealant is 10 minutes.

s. Apply enough Q4-2817 fluorosilicone sealant to the groove to get 0.2 inch squeeze out on both sides of EMI gasket.

t. Level the sealant in the groove using a trowel or plastic scraper to make sure groove is completely filled.

CAUTION

EMI gasket is fragile and must be handled carefully to prevent from breaking.

u. Press EMI gasket into groove using flat side of tongue depressor, detail B.

v. Trowel excess fluorosilicone sealant over form in place seal.

w. Install door within 10 minutes after applying fluorosilicone sealant (A1-F18AC-LMM-010).

x. Allow fluorosilicone sealant to cure for 48 hours minimum.

y. Remove door (A1-F18AC-LMM-010).

z. Remove residual fluorosilicone sealant from exposed surface of EMI gasket using clean rymple cloth.

aa. Inspect fluorosilicone sealant for voids or separations in excess of 0.03 inch deep.

ab. If defects are found, repair per steps below:

(1) Clean void or separation of all contaminants using clean cheesecloth moistened with solvent or cleaning compound.

(2) Allow to air dry for 15 minutes.

(3) Apply MIL-T-21595 tape to EMI gasket.

(4) Trowel apply Q4-2817 fluorosilicone sealant to void or separation to match existing level.

(5) Allow sealant to air cure uncovered for a minimum of 5 hours.

ac. Remove tape applied in step j.

ad. Remove masking.

ae. Install door (A1-F18AC-LMM-010).

11. FORM IN PLACE SEAL DAMAGE MORE THAN 0.80 INCH, OR COMPLETE FORM IN PLACE SEAL REPLACEMENT.

12. Damage can be repaired by replacing damaged section of EMI gasket, fluorosilicone sealant, and form in place seal. When replacing doors 18, 26, 31, 40, 43, or 49, the complete form in place seal, fluorosilicone sealant, and EMI gasket for that door must be replaced. See figure 3.

Support Equipment Required

| Part Number or Type Designation | Nomenclature |
|---------------------------------|-----------------------------------|
| Semco No. 250 | Pneumatic Sealant Gun |
| Semco No. 8646 | Sealant Gun Nozzle |
| — | Torque Wrench 0 to 75 Inch-Pounds |

Materials Required

NOTE

Alternate item part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|------------------------------|---|
| Q4-2817 | Sealing Compound (Fluorosilicone Sealant) |
| MILA9962TY1CL1 GRAX9X1 | Mat, Abrasive |
| MIL-B-131, Class 1 | Barrier Material |

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|---|---|
| MIL-T-21595 TYPE 1 | Tape, Pressure Sensitive |
| DS-108F | Solvent, Wipe |
| 5772 048 | Cleaning Compound |
| CCC-C-440 TYPE 1 | Cheesecloth |
| CLASS 1 | |
| 300 | Tape, Pressure Sensitive (0.125 Inch Wide) |
| MIL-P-15035 | Strip, Phenolic, |
| TYFBGO- | Plastic, 0.047 |
| 047X36-00X96-00 | Inch Thick |
| ADHESIVE 77 | Adhesive, Spray |
| S-115/2IN | Tape, Teflon |
| MIL-S-83430 CLA-1/2 | Sealing Compound |
| 9M882-102, 0.25 | Spacer Ring |
| I.D., 0.50 O.D. | |
| 220325 | Cartridge Assembly |
| 10-04-1720-1287 | EMI Gasket, 0.103 Inch Dia |
| 10-04-2862-1287 | EMI Gasket, 0.130 Inch Dia |
| 10-04-3231-1287 | EMI Gasket, 0.160 Inch Dia COAT |
| GG-D-226 TYPE 1 | Depressor, Tongue |
| PR-182 | Primer, Sealing Compound |
| RYMPLE CLOTH- | Cloth, Cleaning |
| 301-PURIFIED | |
| VV-P-236 | Petrolatum, Tech |
| DC1200 | Primer, Adhesive |
| M83953-1 | Pencil, Aircraft |
| or -2 | Marking |

CAUTION

Use of metal or abrasive cutting tools may cause structure damage. Use only non-metallic tools when scraping or trimming to prevent damage to structure.

- a. For damaged form in place seal, trim EMI gasket, fluorosilicone sealant, and form in place seal

0.50 inch past each end of damaged section, see figure 3. For complete form in place seal replacement, all existing sealant must be removed. For door 18 form in place seal replacement, do per substeps below:

- (1) Temporarily install door 18 (A1-F18AC-LMM-010).

- (2) Using MIL-T-21595 tape and marking pencil, establish centerline indicators on masking tape, see figure 4.

- (3) Remove door 18 (A1-F18AC-LMM-010).

NOTE

If damaged area is located across two mating doors, remove form in place sealant from Z-clips.

- b. Remove sealant using plastic scraper.
- c. Clean any residual sealant using abrasive mat.
- d. Clean up all loose debris.
- e. Inspect area for corrosion. If corrosion is found, a depot engineering disposition is required.
- f. Mask surfaces adjacent to area using barrier material and MIL-T-21595 tape.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

- g. Clean area using clean cheesecloth moistened with solvent or cleaning compound. Allow to air dry for 15 minutes.

- h. Chemical treat all bare aluminum surfaces. For chemical conversion surface treatment (WP008 00).

- i. If primer coat was damaged, touch up as follows:

- (1) Apply 300 tape to unprimed area on longeron and/or bulkhead where EMI gasket will contact, see detail A.

WARNING

PR-182 primer causes eye, skin burns. May cause allergic skin reaction. May cause eye, skin and respiratory irritation. Do not get in eyes, on skin, or on clothing. Avoid breathing dust (vapor, mist, gas). Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

(2) Apply primer.

(3) Remove 300 tape.

(4) Clean area using clean cheesecloth moistened with solvent or cleaning compound.

(5) Wipe surface dry with clean dry cheesecloth before solvent or cleaning compound evaporates. Allow to air dry for 15 minutes.

j. Apply a thin coat of primer to entire area.

k. Allow primer to dry 5 minutes, before wiping dry with a clean, dry cheesecloth.

l. Apply phenolic strips to unprimed surface of area:

(1) Cut phenolic strip(s) to required length.

(2) Lightly abrade mating surface of phenolic strip(s) using abrasive mat.

WARNING

Adhesive is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

(3) Spray apply an even coat of adhesive to abraded surface of phenolic strip(s).

(4) Allow adhesive to air dry for 5 minutes before applying a second coat.

CAUTION

Wear clean cotton gloves when applying phenolic strip(s). Contamination of cleaned surface can result if touched with bare hand.

(5) Install phenolic strip(s) on unprimed surface, detail A.

WARNING

Sealing compound is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

(6) Apply fillet seal to each side of phenolic strip using sealing compound. Allow to cure to tack free condition.

m. Apply S-115 teflon tape to surface of door contacting new form in place seal:

(1) Wrap tape around bottom and edge of door.

(2) Secure tape in place using MIL-T-21595 tape.

(3) Make sure S-115 teflon tape on inner edge of door is free of wrinkles.

NOTE

If area extends across two mating doors, apply MIL-T-21595 tape on both ends of Z-clip to form a dam.

n. Apply MIL-T-21595 tape to adjacent form in place seal, fluorosilicone sealant, and EMI gasket, detail B.

o. Apply form in place seal:

NOTE

Use form in place seal spacer ring centers to meet contour smoothness requirements (A1-F18AC-SRM-200, WP008 00) and to allow a 10 mil minimum seal thickness.

(1) Position spacer ring centers on inner door surface at equally spaced distances between fastener holes.

(2) Do not position spacer ring centers over any fastener hole.

WARNING

Petrolatum may cause eye, skin and respiratory irritation. Avoid breathing dust (vapor, mist, gas). Keep container closed. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

CAUTION

Do not allow petrolatum to contact any surface where sealant is to adhere. Sealant will not adhere to petrolatum coated surfaces.

(3) Spread a thin film of petrolatum over spacer ring centers contacting sealant.

WARNING

Sealing compound is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

(4) Prepare sealing compound. Do sealant preparation procedures (A1-F18AC-SRM-200, WP011 00).

NOTE

Apply enough sealing compound to get squeeze out between door and structure.

(5) Apply sealing compound to area, including Z-clips if applicable, using sealing gun with number 8646 nozzle.

(6) For form in place seal of doors 26, 31, 40, 43 or 49, go to substep a, for form in place seal for door 18 go to substep e.

NOTE

Install door within application time of sealing compound.

(a) Lightly lay door over sealing compound.

(b) Install a fastener coated with petrolatum into each fastener hole of door where seal is being formed.

CAUTION

Do not exceed recommended torque of fastener. Damage to door and/or fastener attaching hardware may result. Refer to A1-F18AC-LMM-010 for torque values.

(c) Tighten enough fasteners to maintain mold line flushness requirements (A1-F18AC-SRM-200, WP008 00).

(d) Go to step (7).

NOTE

May apply up to 250 pounds of weight on door 18, to aid in fastener installation.

(e) Lightly lay door 18 over sealing compound and align centerline indicators, see figure 4.

(f) Install and snug fasteners 1L and 1R, coated with petrolatum, do not torque, see figure 4.



Do not exceed recommended torque of fastener. Damage to door and/or fastener attaching hardware may result.

(g) Install and torque fasteners coated with petrolatum per following sequence; 16L, 16R, 17L, 17R, 15L, 15R, 14L, 14R, 13L, 13R, 12L, 12R, 11L, 11R, 10L, 10R, 9L, 9R, 8L, 8R, 7L, 7R, 6L, 6R, 5L, 5R, 4L, 4R, 3L, 3R, 2L, and 2R.

(h) Torque fasteners 1L and 1R.

(i) Install and torque fasteners 18L and 18R coated with petrolatum.

(7) Allow door to remain installed until sealant becomes tough and rubbery.

(8) Trim cured sealant squeeze out flush with mold line using plastic scraper with 45 degree cutting edge.

(9) Carefully remove door.

(10) Trim sealant flush with edge of structure.

(11) Remove form in place seal spacer ring centers from inner door surface.

NOTE

Door is not required to be installed during sealant curing. A slight recessed condition of the sealant used to fill spacer holes is acceptable.

(12) Apply sealant in void left by spacer ring centers to a height even with adjacent seal.

(13) Allow sealant to cure.



Do not use wire brush or stiff bristle brush which will strip solid film lubricant from plate nuts.

(14) Remove cured sealant from fastener holes and plate nuts with rotating nylon brush.

(15) Inspect repaired form in place seal per substeps below:

(a) Visually inspect seal for void or skips that will allow leakage.

(b) Pull thumb firmly across seal to check adhesion to structure.

(c) Inspect seal cure by depressing with thumb nail to check elasticity.

(d) If seal is defective, trim away damaged section and repeat step o.

p. Remove phenolic strip(s), detail B.

q. Measure depth of groove in form in place seal.

NOTE

Repair EMI gasket diameter may vary from existing gasket diameter.

r. Determine EMI gasket to be installed based on groove depth per Table 1.

s. If required for larger EMI gasket, trim equal amount of form in place sealant from each side of groove. See Table 1.

t. Cut new EMI gasket to butt against adjacent EMI gasket, see detail B and C.

u. Scuff surface of form in place seal around repair area using abrasive mat.

v. Clean groove area exposing aluminum surface, form in place seal, and new EMI gasket with clean cheesecloth moistened with solvent or cleaning compound.

w. Wipe surface dry with clean dry cheesecloth before solvent or cleaning compound evaporates. Allow to air dry for 15 minutes.

WARNING

DC1200 adhesive primer is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

x. Apply DC1200 adhesive primer to the following areas:

(1) Exposed aluminum surface in the form in place seal groove.

(2) Face and groove sides of form in place seal in the repair area.

(3) Allow primer 5 minutes, before wiping dry with a clean, dry cheesecloth.

WARNING

Q4-2817 fluorosilicone sealant is toxic. Wash hands thoroughly prior to eating, drinking, or smoking.

NOTE

Working time for Q4-2817 fluorosilicone sealant is 10 minutes. Larger areas may need to be done in sections at a time.

x. Apply enough Q4-2817 fluorosilicone sealant to groove to get 0.2 inch squeeze out on both sides of EMI gasket.

y. Level sealant in groove using a trowel or plastic scraper to make sure groove is completely filled.

CAUTION

EMI gasket is fragile and must be handled carefully to prevent from breaking.

z. Press EMI gasket into groove using flat side of tongue depressor, detail B.

aa. Trowel excess fluorosilicone sealant over form in place seal, detail B.

ab. Install door within 10 minutes after applying fluorosilicone sealant (A1-F18AC-LMM-010).

ac. Allow fluorosilicone sealant to cure for 72 hours minimum.

ad. Remove door (A1-F18AC-LMM-010).

ae. Remove residual sealant from exposed surface of EMI gasket using clean rymple cloth.

af. Inspect fluorosilicone sealant for voids or separations in excess of 0.03 inch deep.

ag. If defects are found, repair per steps below:

(1) Clean void or separation of all contaminates using clean cheesecloth moistened with solvent or cleaning compound.

(2) Allow to air dry for 15 minutes.

(3) Apply MIL-T-21595 tape to EMI gasket.

(4) Trowel apply Q4-2817 fluorosilicone sealant to void or separation to match existing level.

(5) Allow sealant to air cure uncovered for a minimum of 5 hours.

ah. Remove tape applied in step m.

ai. Remove masking.

aj. Install door (A1-F18AC-LMM-010).

ak. Apply butt gap seal to door as required (A1-F18AC-SRM-500, WP010 00).

Table 1. EMI Gasket Groove Dimensions

| Form In Place Groove Depth | Trim Groove Each Side | Groove Width | EMI Gasket Diameter | EMI Gasket Part Number |
|----------------------------|-----------------------|--------------|---------------------|------------------------|
| 0.07 or less | None | 0.125 | 0.103 | 10-04-1720-1287 |
| 0.08 to 0.10 | 0.020 | 0.165 | 0.130 | 10-04-2862-1287 |
| 0.11 or more | 0.030 | 0.185 | 0.160 | 10-04-3231-1287 |

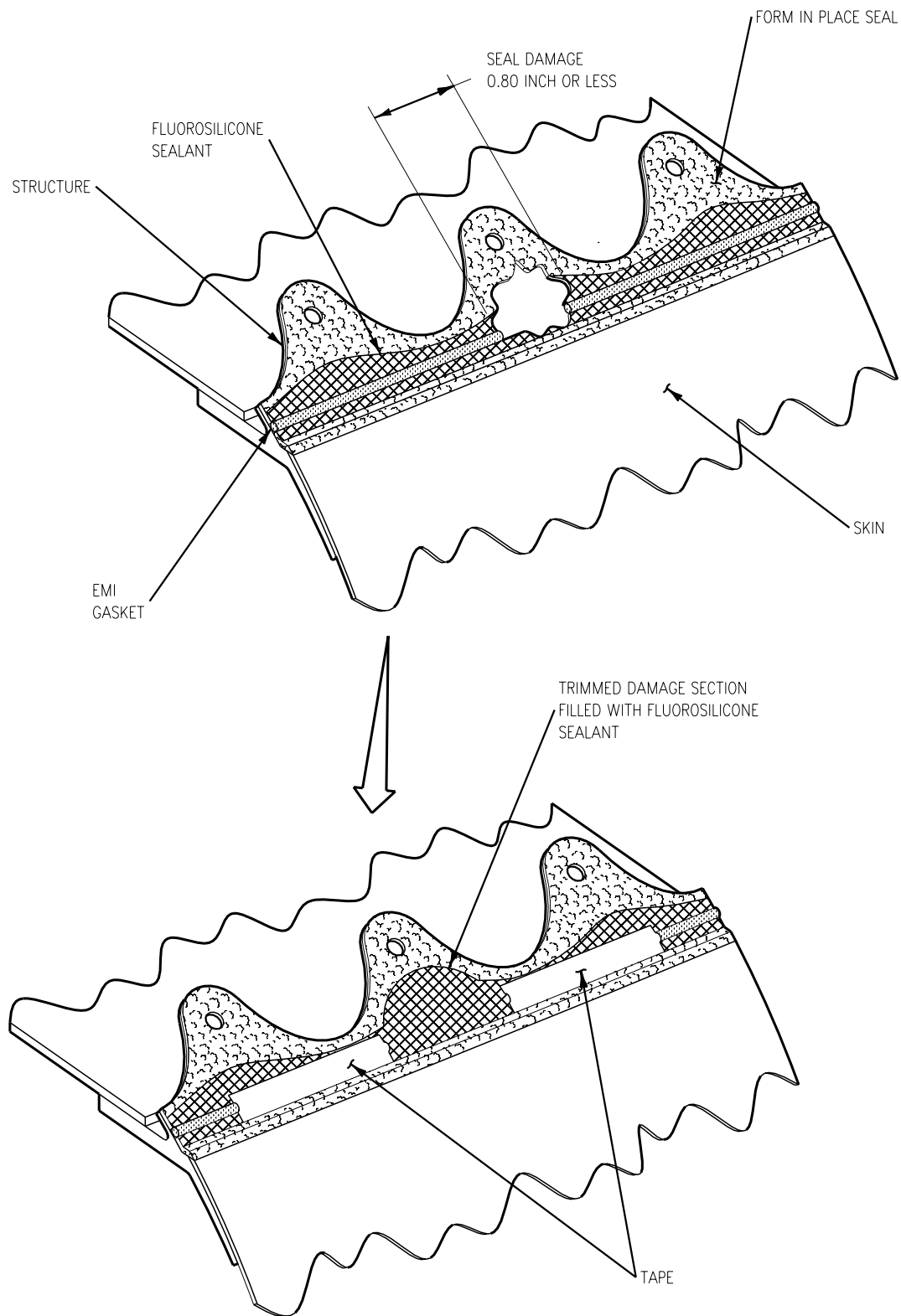


Figure 1. Form In Place Seal Damage Less Than 0.80 Inch

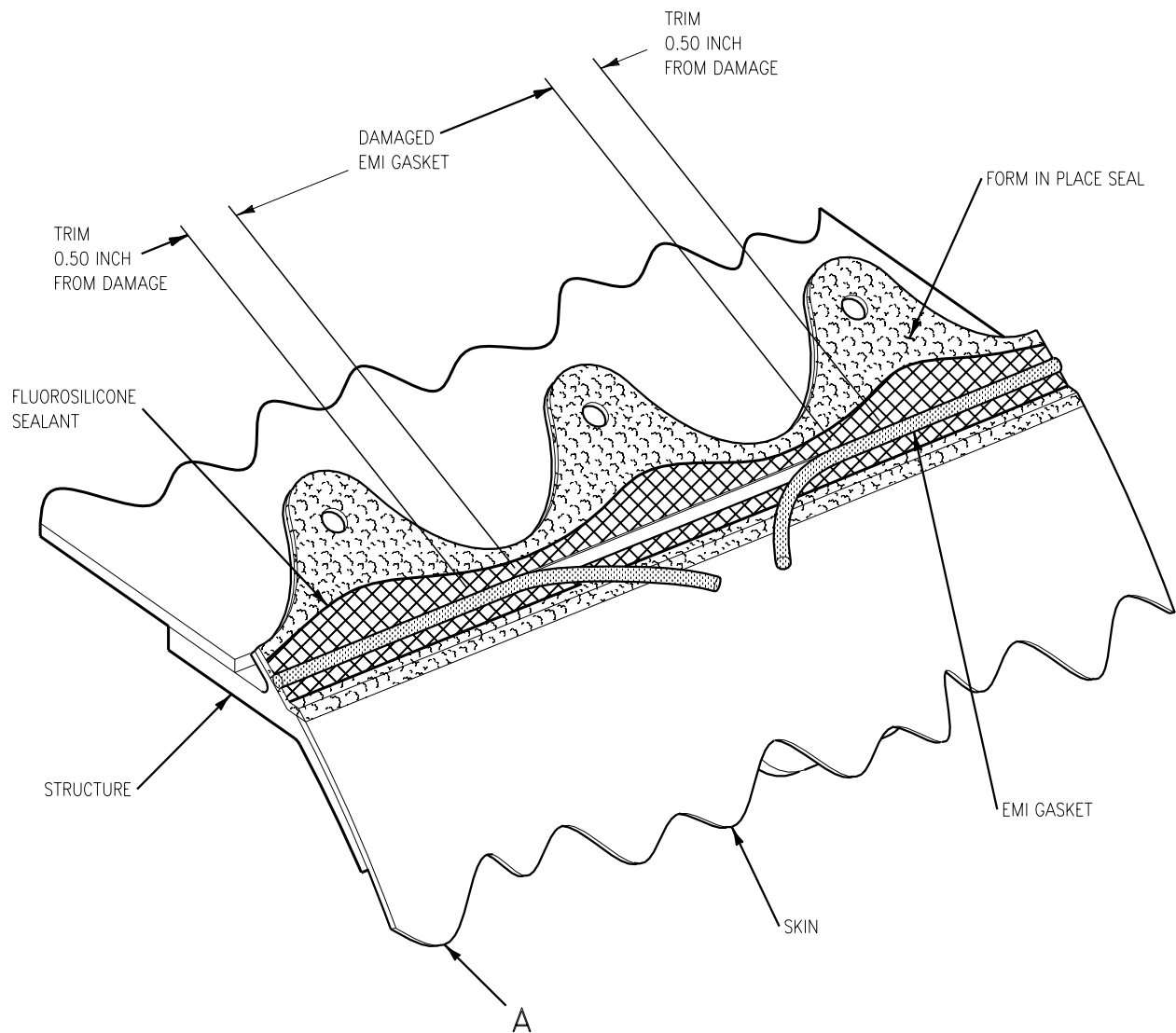


Figure 2. EMI Gasket Replacement (Sheet 1)

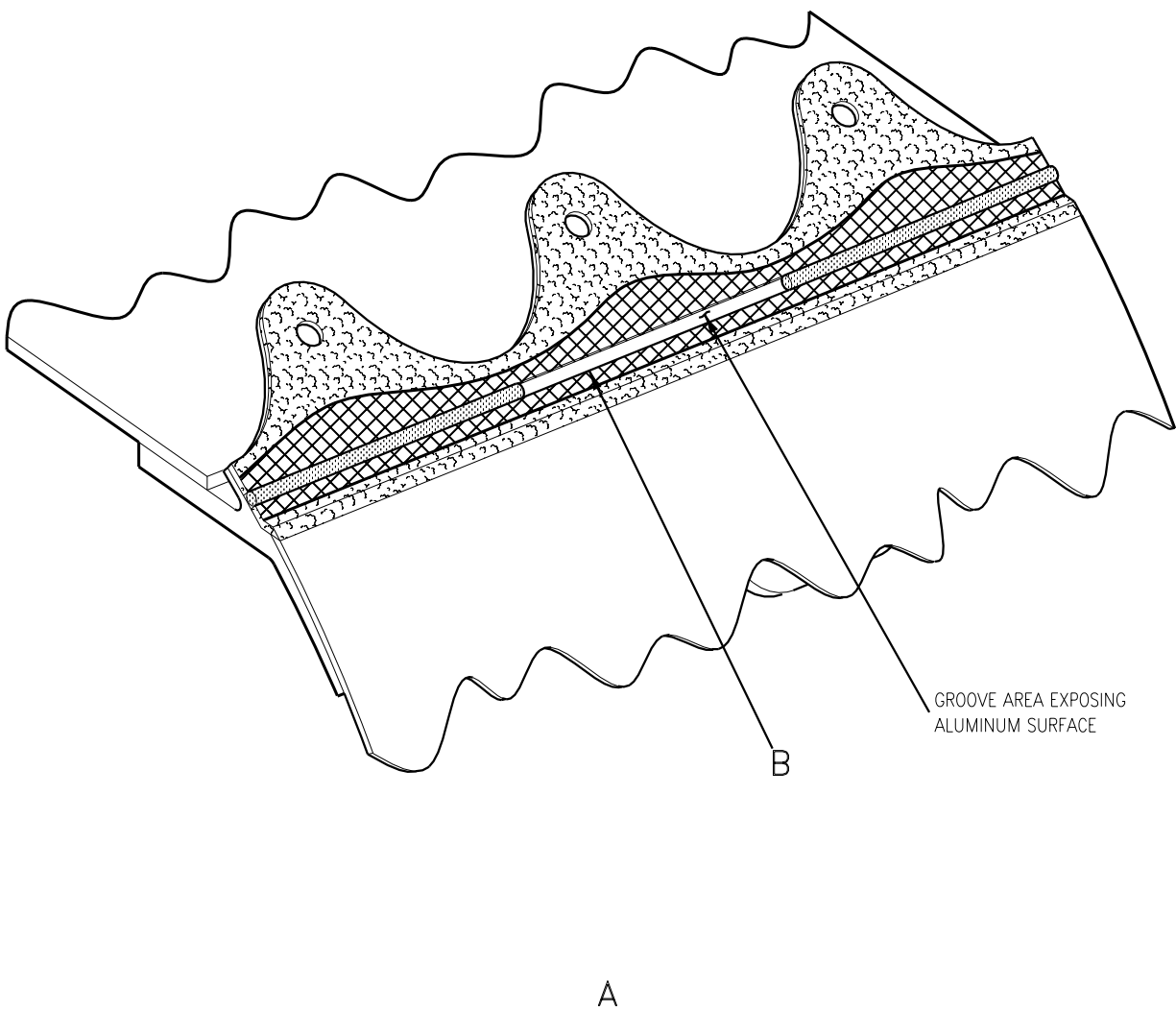
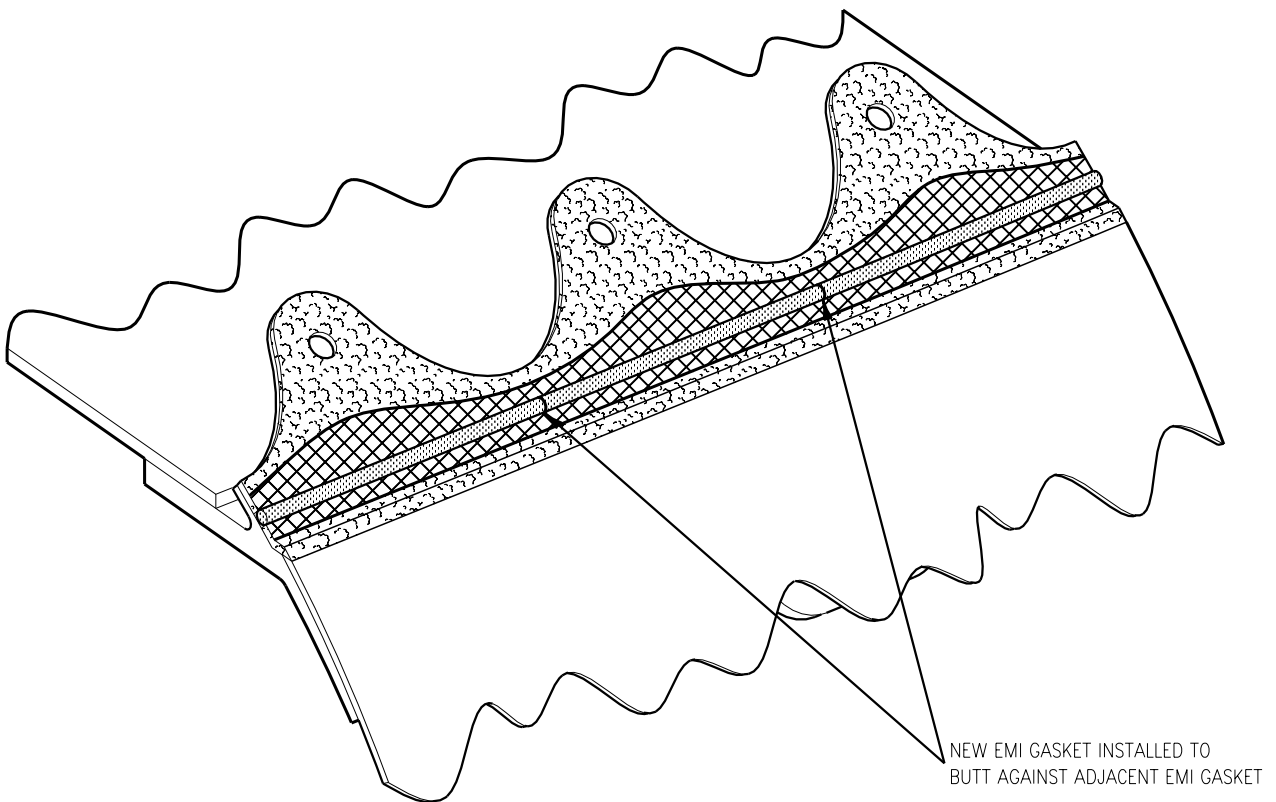


Figure 2. EMI Gasket Replacement (Sheet 2)



B

Figure 2. EMI Gasket Replacement (Sheet 3)

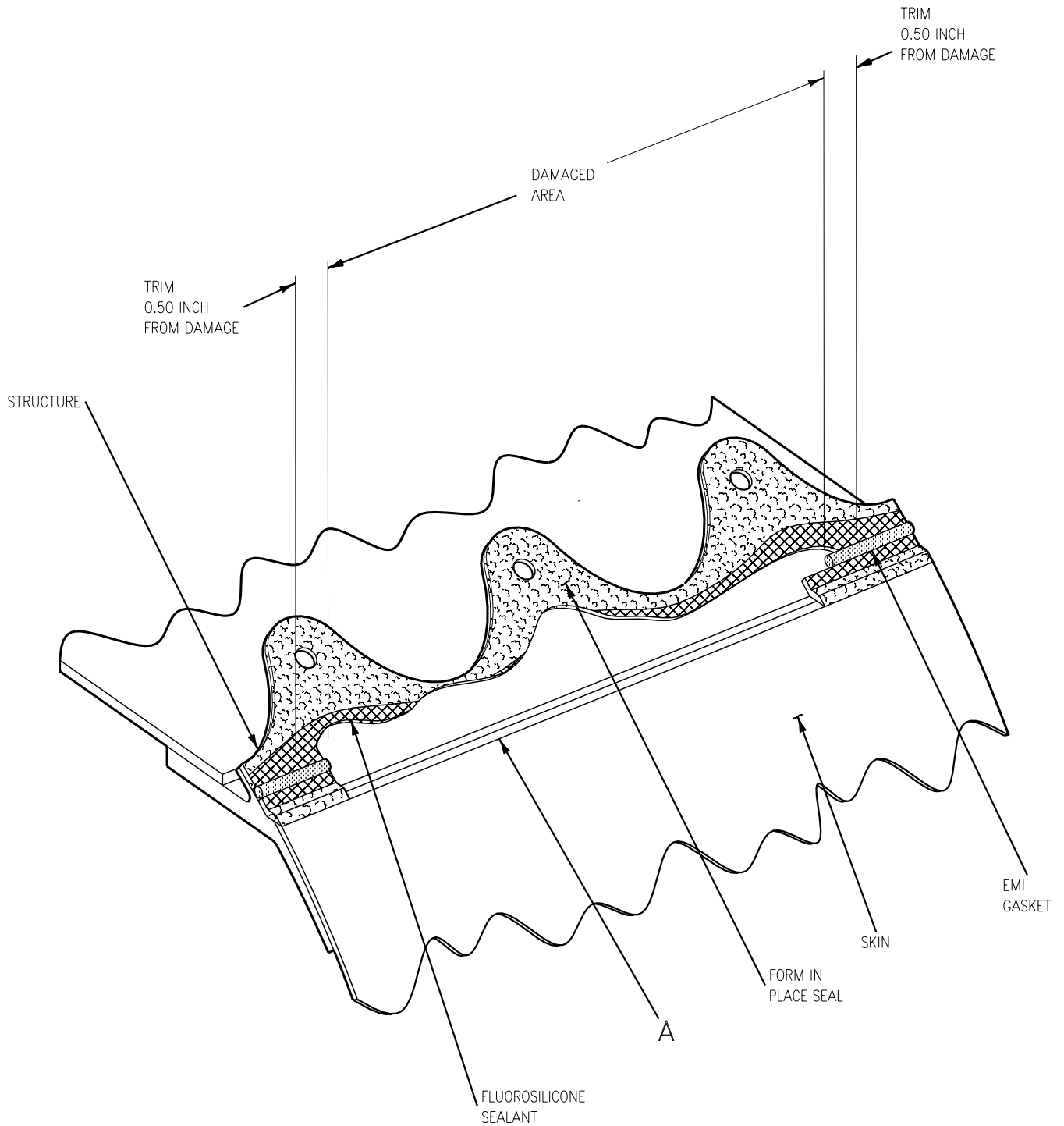


Figure 3. Form In Place Seal Damage More Than 0.80 Inch (Sheet 1)

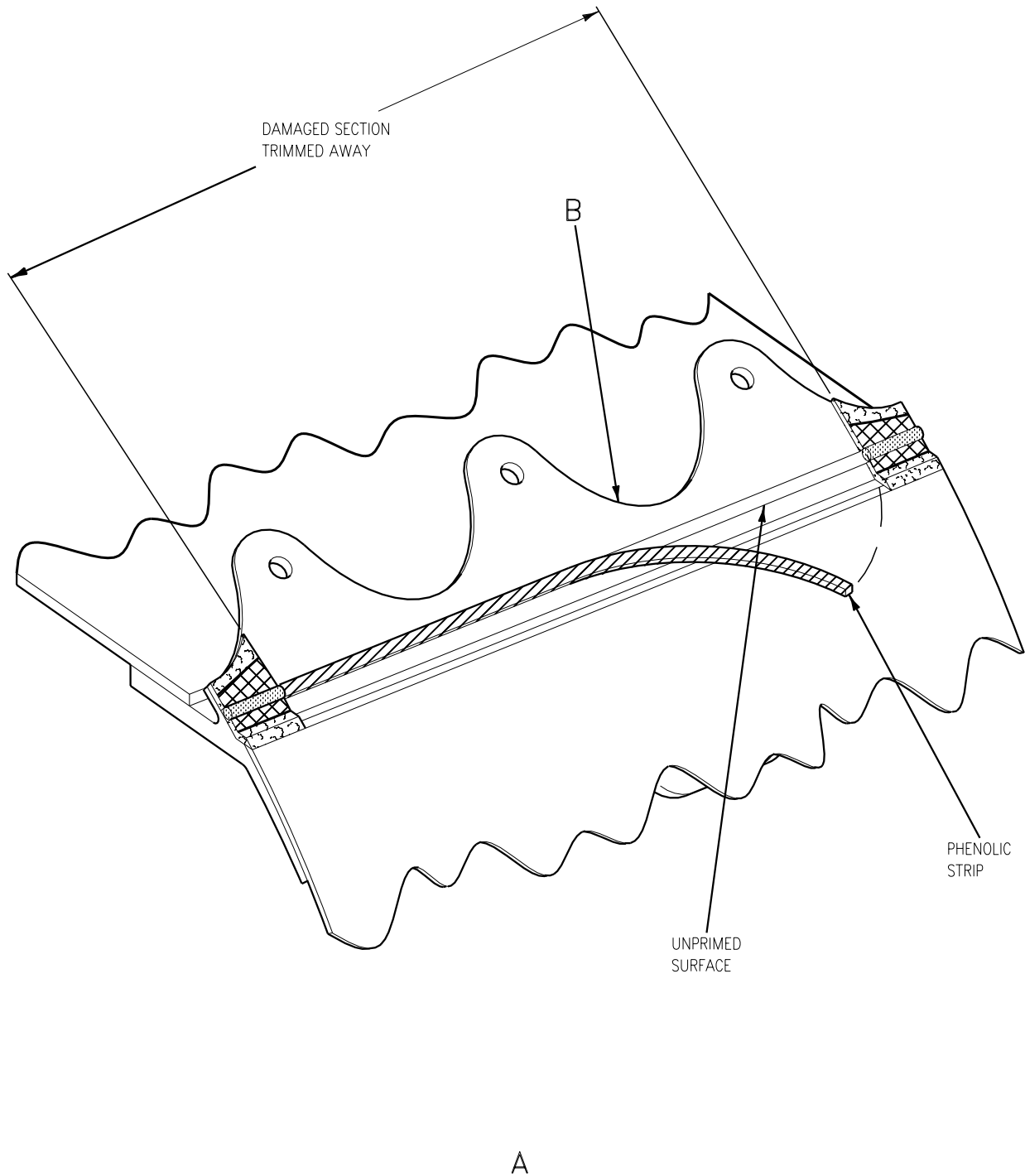


Figure 3. Form In Place Seal Damage More Than 0.80 Inch (Sheet 2)

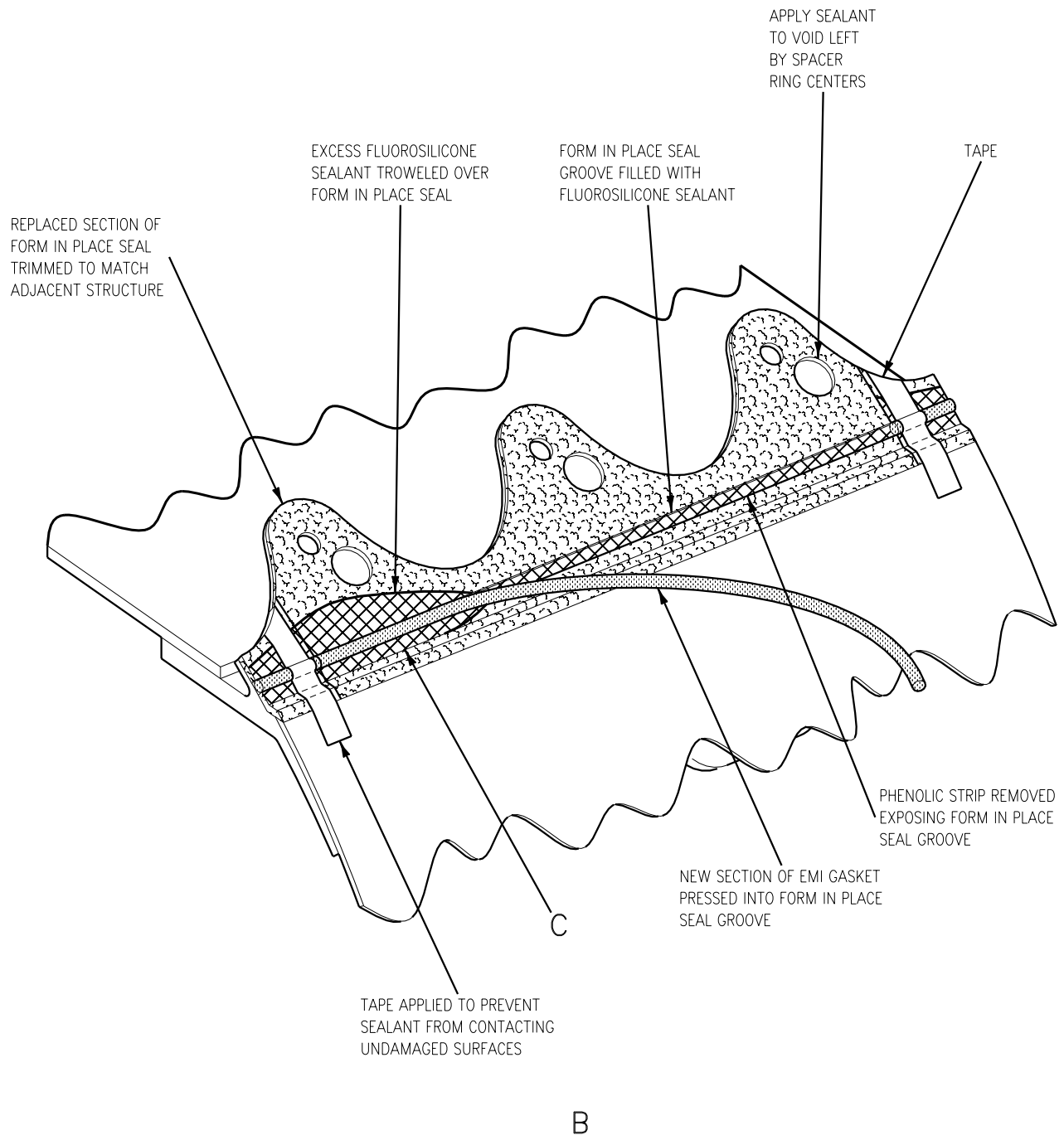


Figure 3. Form In Place Seal Damage More Than 0.80 Inch (Sheet 3)

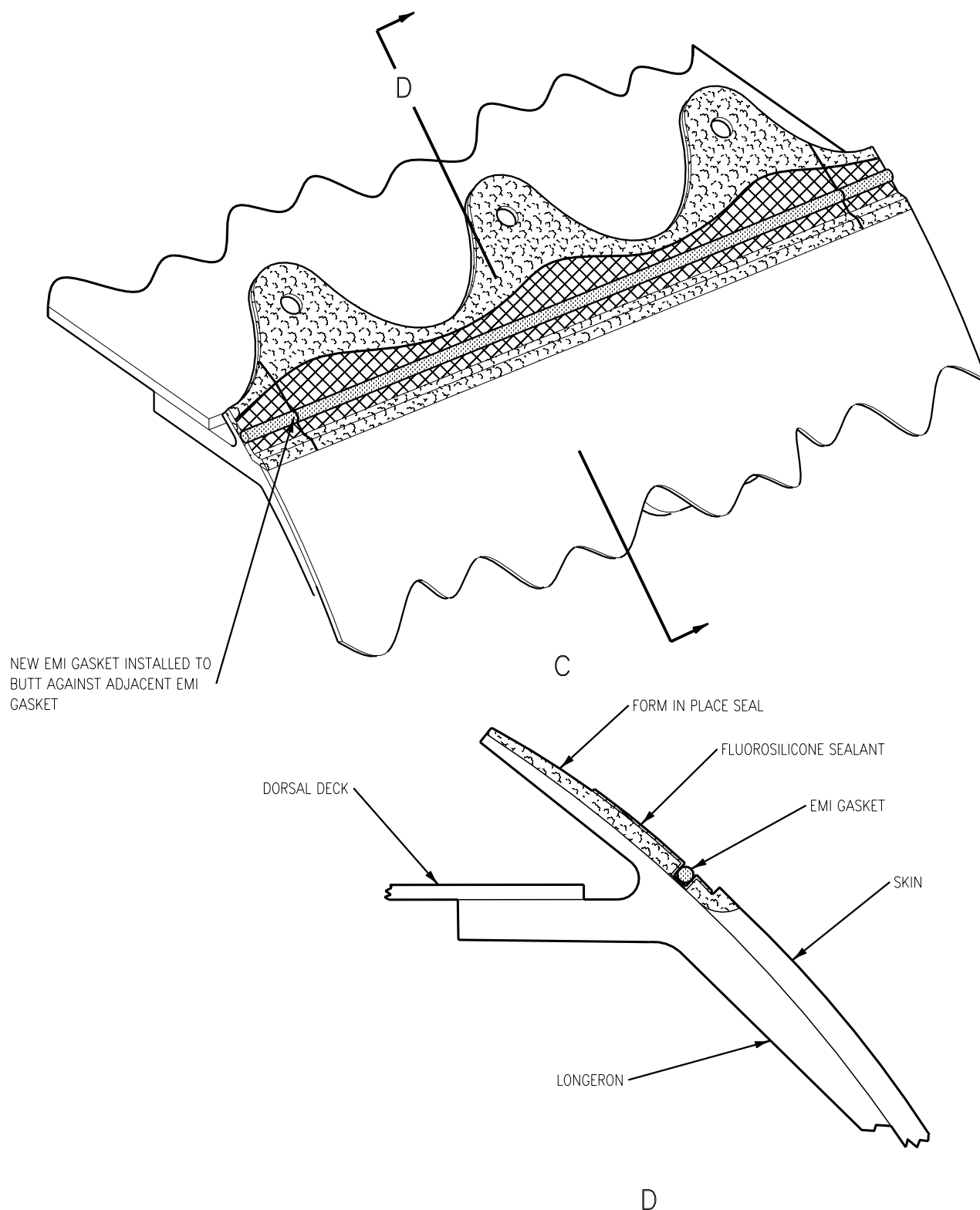


Figure 3. Form In Place Seal Damage More Than 0.80 Inch (Sheet 4)

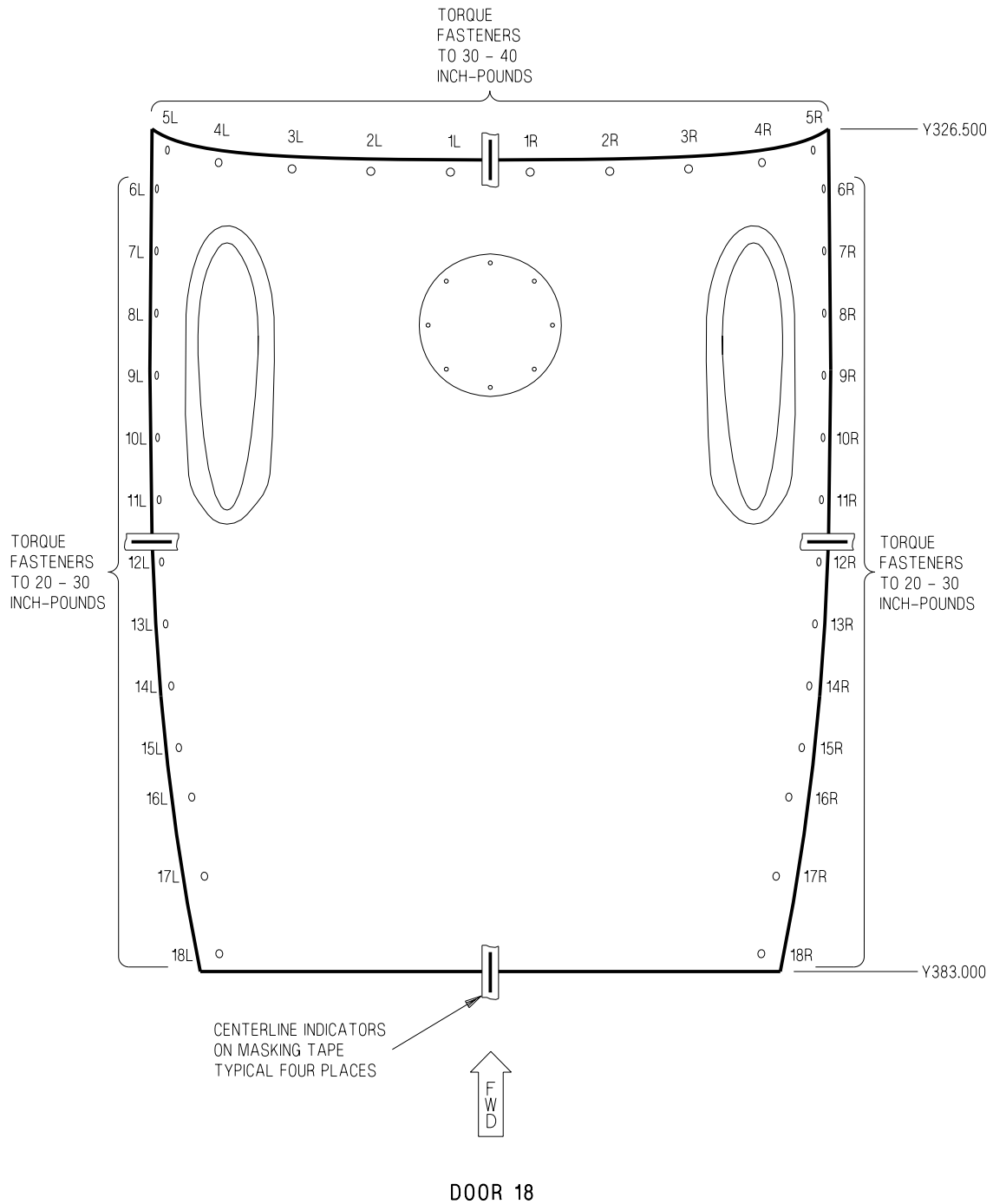


Figure 4. Door 18 Fastener Installation Sequence.

ORGANIZATIONAL AND DEPOT MAINTENANCE

AIRCRAFT CORROSION CONTROL

REMOVAL AND CLEANUP OF CORROSION FROM STRUCTURE AT DOORS 3, 6, 10, 13, AND 14

Reference Material

| | |
|--|------------------|
| Aircraft Fuel Cells and Internal/External Tanks..... | NAVAIR 01-1A-35 |
| Plane Captain Manual | A1-F18AC-PCM-000 |
| Line Maintenance Access Doors..... | A1-F18AC-LMM-010 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| In-Service Tolerances | WP008 00 |
| Adhesive, Cement and Sealant; Preparation and Application..... | WP011 00 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Finish System | WP012 00 |
| Fuel System | A1-F18AC-460-300 |
| Ground Support Equipment | WP009 01 |
| Fuel System | A1-F18AE-460-300 |
| Ground Support Equipment | WP010 00 |

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Galvanic corrosion is being detected on 7075-T76 aluminum alloy avionics bay longerons. Corrosion is caused by water entrapment behind door strips installed in production on aircraft 161353 THRU

161736. Removal of door strips; inspection and/or cleanup of corrosion must be preformed. Removed door strips are replaced with tin/zinc arc spray coating. Corrosion pits are also being found on

aluminum sills of doors 3, 6, 10, 13, and 14 due to EMI finger contact. Removal and cleanup of corrosion must be done and followed with application of tin/zinc arc spray coating. Procedures for removal of door strips, surface preparation, application of tin/zinc coating and application of form in place sealing is depot maintenance. Maintenance or replacement of form in place seal is organizational maintenance.

3. SAFETY PRECAUTIONS.

a. Make sure aircraft is defueled and systems purged.

(1) Defuel aircraft (A1-F18AC-PCM-000).

(2) Drain residual fuel
(A1-F18AC-PCM-000).

(3) Do purging and inerting methods
(NAVAIR 01-1A-35).

(4) Purge and inert fuel cells until safe indication is displayed on combustible and toxic gas indicator (A1-F18AC-460-300, WP009 01 or A1-F18AE-460-300, WP010 00).

b. No smoking allowed in repair area.

c. Dispose of all used rags or other material in safety disposal containers.

d. The arc spray gun shall never be pointed towards personnel or combustible material.

e. The arc from the arc spray gun shall not be viewed with the unshielded eye.

f. Ventilation shall be provided to quickly remove all dust and fumes from the area.

g. Respirator shall be worn during vacu-blast and arc spray operation.

h. Eye protection is required when vacu-blast and arc spray equipment is used.

i. No food or drink shall be allowed in work area.

4. PROCEDURES.

Support Equipment Required

| Part Number or Type Designation | Nomenclature |
|---------------------------------|--|
| GGG-M-125/6 | Respirator With Cartridge |
| Semco No. 250 | Pneumatic Sealant Gun |
| Semco No. 8646 | Sealant Gun Nozzle |
| MIL-H-81324 | Portable Dry Honing Machine |
| Model No. 375 | Electric Arc Spray System |
| — | Sealant Scraper, Phenolic (Micarta or Formica) |
| 61-7715-5507-7L | Brush, Fiber, Rotary |
| Semco No. 420 | Sealant Gun Nozzle |

Materials Required

| Specification or Part Number | Nomenclature |
|-------------------------------|--------------------------|
| QQ-T-371 GRADE A | Tin Pig |
| MIL-S-83430 CLB-1/2 | Tin/Zinc (20-80) |
| A-A-883, TYPE 1, 1/4IN to 1IN | Sealing Compound |
| 855-1.000IN | Tape, Pressure Sensitive |
| 250-1IN | Tape, Pressure Sensitive |
| A-A-203 | Tape, Pressure Sensitive |
| A-A-42A | Paper, Kraft, Untreated |
| A-A-1047 GRIT 180-9X11 | Talcum Powder |
| 240-9X11 | Paper, Abrasive |
| 400-9X11 | |
| MIL-A-21380, TYPE 1, GRIT 120 | Grain, Abrasive |
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| TT-I-735, GRADE B | Isopropyl Alcohol |
| VV-P-236 | Petrolatum, Tech |
| 220325 | Cartridge Assembly |
| EA9321 A/B | Adhesive |

Materials Required (Continued)**Specification
or Part Number****Nomenclature**DS-108F
5772 048Solvent, Wipe
Cleaning Compound**5. REMOVAL OF DOOR STRIPS.**

a. Open doors 3, 6, 10, 13 and 14 as required (A1-F18AC-LMM-010).

b. Remove door strips by drilling out all rivets holding door strips to longerons and bulkheads. See figure 1, section A, B, and C.

6. SURFACE PREPARATION.

a. Remove form in place seal from structure.

CAUTION

Make sure avionics equipment bay is thoroughly double masked. Damage to electrical equipment will occur if elements from vacu-blast or arc spray are allowed to penetrate masking.

b. Double mask avionics equipment bay using untreated kraft paper A-A-883 pressure sensitive tape.

NOTE

Corrosion damage deeper than tolerances specified in figure 2 requires engineering disposition.

c. Remove corrosion and/or any remaining sealant from longerons and formers using rotary fiber brush with drill motor. See figure 2 for tolerances.

d. Clean up any remaining corrosion and/or sealant from radius or splices by sanding with 180 grit abrasive paper.

e. Vacuum clean any loose particles.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

f. Clean rivet hole areas on longeron and formers with clean cheesecloth moistened with solvent or cleaning compound. Allow to air dry for 15 minutes.

WARNING

EA9321 A/B adhesive is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

g. Prepare adhesive (A1-F18AC-SRM-200, WP011 00).

h. Apply adhesive using sealant gun with number 420 nozzle to all rivet holes in structure used to attach door strips. See figure 1, sections A, B, or C for location.

i. Cure adhesive (A1-F18AC-SRM-200, WP011 00).

j. Sand adhesive flush with structure using 240 grit abrasive paper.

k. Vacuum clean any loose particles.

7. APPLICATION OF TIN/ZINC ARC SPRAY.**WARNING**

Isopropyl alcohol is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

a. Clean area to be arc sprayed by wiping with cheesecloth moistened with isopropyl alcohol.

b. Continue wiping until no residue appears on cheesecloth.

c. Wipe dry with clean dry cheesecloth.

d. Mask areas not receiving vacu-blast and arc spray coating using 250-1IN pressure sensitive tape and untreated kraft paper. See figure 3.

CAUTION

Avoid contaminating vacu-blast surface with vacuum hoses and cables. Tin/zinc coating will not bond to contaminated surfaces.

e. Vacu-blast areas to receive arc spray.

(1) Set nozzle pressure at 70 PSI.

(2) Hold blast nozzle 6 to 8 inches from part.

CAUTION

The use of unclean abrasive grain will weaken tin/zinc coating bond.

(3) Vacu-blast using 120 grit abrasive grain. Fan nozzle completely over longeron and bulkheads until a dull, uniform appearance is established.

(4) Vacuum clean any particles remaining on repair area.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

(5) Clean excessively dusty or contaminated vacu-blast surfaces with clean cheesecloth moistened with solvent or cleaning compound.

(6) Wipe dry with clean dry cheesecloth. Allow to air dry for 15 minutes.

NOTE

A maximum of 2 hours is allowed to apply tin/zinc arc spray once surface has been vacu-blast. If more than 2 hours, vacu-blast procedures must be repeated.

f. Apply tin/zinc arc spray within 2 hours after vacu-blast.

(1) Carefully apply 855-1.000 pressure sensitive tape at four separate locations along periphery of area to be arc sprayed for later coating thickness measurements. See figure 3.

WARNING

The arc spray is an electrically initiated coating and sparks are generated inside gun and is a fire risk. Make sure safety precautions, paragraph 3, step a, substeps (1), (2), (3), and (4) have been complied with.

CAUTION

Avoid contaminating vacu-blast surface with arc spray cables. Tin/zinc coating will not bond to contaminated surfaces.

(2) Hold arc spray gun 6 to 12 inches from part.

NOTE

Spray tin/zinc coating so a progressive buildup occurs over complete surface of part designated for coating.

(3) Move arc spray gun across area to be sprayed at approximately 15 inches per second.

(4) Overlap each coat by 1/3 of band width.

(5) Remove any roughness from sprayed surface by sanding lightly with 400 grit abrasive paper.

(6) Vacuum clean any metal dust remaining from arc spray operation.

g. Peel tin/zinc coating from 855-1.000 pressure sensitive tape at one of four locations for a thickness measurement.

NOTE

If arc spray coating is too thin, apply one more coat within 30 minutes of first application.

h. Measure arc spray coating. Thickness shall be 0.008 ± 0.004 inches.

i. Measure thickness of arc spray coating from remaining tape locations.

j. If cracks or blisters develop in coating during spray operation, repair damaged areas.

(1) Lightly hand sand damaged area using 180 grit abrasive paper to remove defective tin/zinc coating. Bevel edges of tin/zinc surrounding area to be resprayed.

(2) Remove sanding residue by wiping with clean cheesecloth.

NOTE

Respray must be within 30 minutes of first application. Resprayed areas do not require thickness check.

(3) Respray tin/zinc coating.

k. Check adhesion of tin/zinc coating at a minimum of four separate locations.

NOTE

Recommended length of tape is approximately 8 inches. Size tape accordingly to areas where part will not allow this contact length.

(1) Apply 8 inch strip of 250-1IN pressure sensitive tape to tin/zinc coating.

(2) Press pressure sensitive tape on tin/zinc coating using firm hand pressure to establish good adhesion.

(3) Lift one end of pressure sensitive tape approximately 2 inches.

(4) With lifted end of pressure sensitive tape at 45° to surface, remove remainder of pressure sensitive tape with one abrupt motion.

NOTE

Area shall be considered to have failed adhesion test if tin/zinc coating is removed from an area larger than 1 square inch.

(5) Inspect surface for any removal of tin/zinc coating.

NOTE

Use new 250-1IN pressure sensitive tape with each tape pull.

(6) If tin/zinc coating is removed from an area 1 square inch or less, do three more tape pulls. Rotate tape 60° after each pull across edge of failed area.

NOTE

Area is considered a localized failure if no more tin/zinc coating was removed during retest.

(7) Touch up localized failed areas 1 square inch or less.

(8) If more than 1 square inch of failed area exists, repeat entire spraying process.

l. Remove pressure sensitive tape and untreated kraft paper used in masking procedures.

NOTE

Structure in avionics bays are finished with white color no. 17875.

m. Before applying finish system, do finish system procedures to areas on longerons and formers not receiving arc spray coating (WP012 00).

n. Slightly overlap edge of tin/zinc arc spray with primer and finish.

8. APPLICATION OF FORM IN PLACE SEAL.

- a. Layer A-A-883 pressure sensitive tape over arc sprayed areas to prevent sealing compound to contact arc sprayed coating. See figure 4.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

- b. Clean seal mating surface of door(s) by wiping with clean cheesecloth moistened with solvent or cleaning compound.

- c. Wipe surface dry with clean dry cheesecloth. Allow to air dry for 15 minutes.

WARNING

Petrolatum may cause eye, skin and respiratory irritation. Avoid breathing dust (vapor, mist, gas). Keep container closed. Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

NOTE

Do not allow petrolatum to contact surface to which sealing compound is to be applied or surface must be recleaned.

- d. Apply a thin film of petrolatum to seal contact area around door perimeter, door edge and to mold line surfaces of door perimeter.

- e. Mask mold line skin flush with door opening where squeeze out will occur.

WARNING

MIL-S-83430 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

- f. Prepare MIL-S-83430, class B-4 sealing compound (A1-F18AC-SRM-200, WP011 00).

- g. Fill cartridge assembly with sealing compound and install plunger and nozzle.

- h. Install cartridge in sealant gun.

NOTE

If seal is wider than 1 inch, place a second bead of sealant next to the first. Apply enough sealing compound to get squeeze out between door(s) and structure.

- i. Apply sealing compound to longerons and formers using sealing gun with number 8646 nozzle.

NOTE

Install door(s) within application time of sealing compound.

- j. Close door(s) and lock rotary latches (A1-F18AC-LMM-010). Maintain mold line flushness requirements (A1-F18AC-SRM-200, WP008 00).

- k. Allow sealing compound to cure until sealant becomes tough and rubbery (WP010 00, table 1).

- l. Trim sealing compound flush with mold line using sealant scraper.

- m. Open door(s) (A1-F18AC-LMM-010).

- n. Remove pressure sensitive tape from arc sprayed areas.

NOTE

Voids or bubbles 0.200 or less in diameter located at least 0.200 from seal edge are negligible.

o. Trim sealant flush with outer periphery of arc spray coating.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

p. Clean petrolatum from door(s) and seal area by wiping with clean cheesecloth moistened with solvent or cleaning compound.

q. Wipe dry with clean dry cheesecloth. Allow to air dry for 15 minutes.

r. Remove pressure sensitive tape and untreated kraft paper.

s. Apply light even coat of talcum powder over seal.

9. MAINTENANCE OF FORM IN PLACE SEAL.

10. **Negligible Damage.** Voids or bubbles 0.200 or less in diameter located at least 0.200 from seal edge are negligible.

11. **Repairs.** Damage or void areas of seal shall be repaired using same materials and methods described in paragraph 8.

a. Trim damaged seal and remove from structure using a sealant scraper.

b. Mask avionics bay area.

NOTE

If damage to seal has caused finish or primer damage, do finish system procedures (WP012 00).

c. Replace damaged section of seal per paragraph 8.

12. REPLACEMENT OF FORM IN PLACE SEAL.

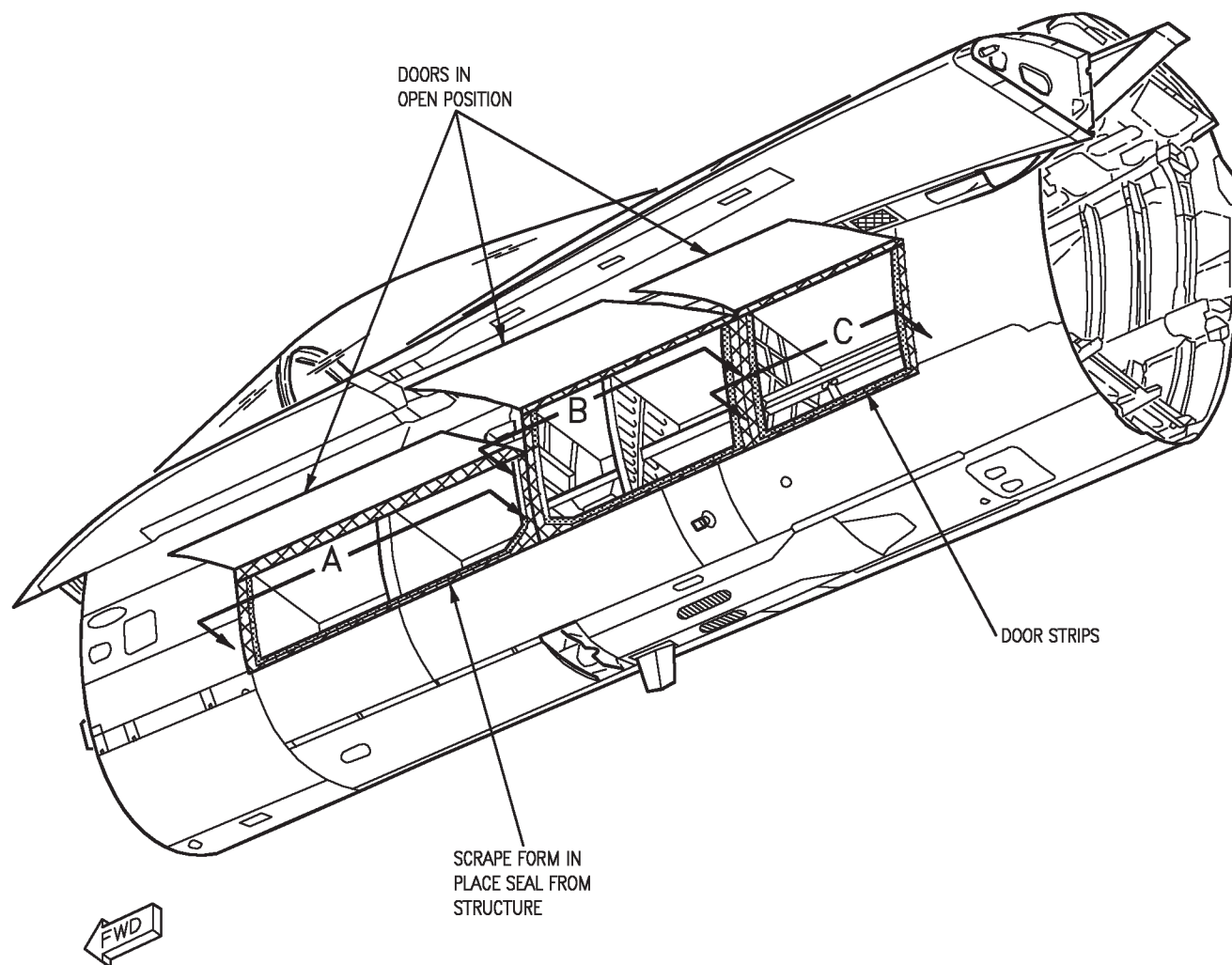
a. Remove form in place seal.

b. Mask avionics bay area.

NOTE

If damage to seal has caused finish or primer damage, do finish system procedures (WP012 00).

c. Replace form in place seal per paragraph 8.



ELECTRICAL EQUIPMENT REMOVED FOR CLARITY

Figure 1. Removal of Door Strips (Sheet 1)

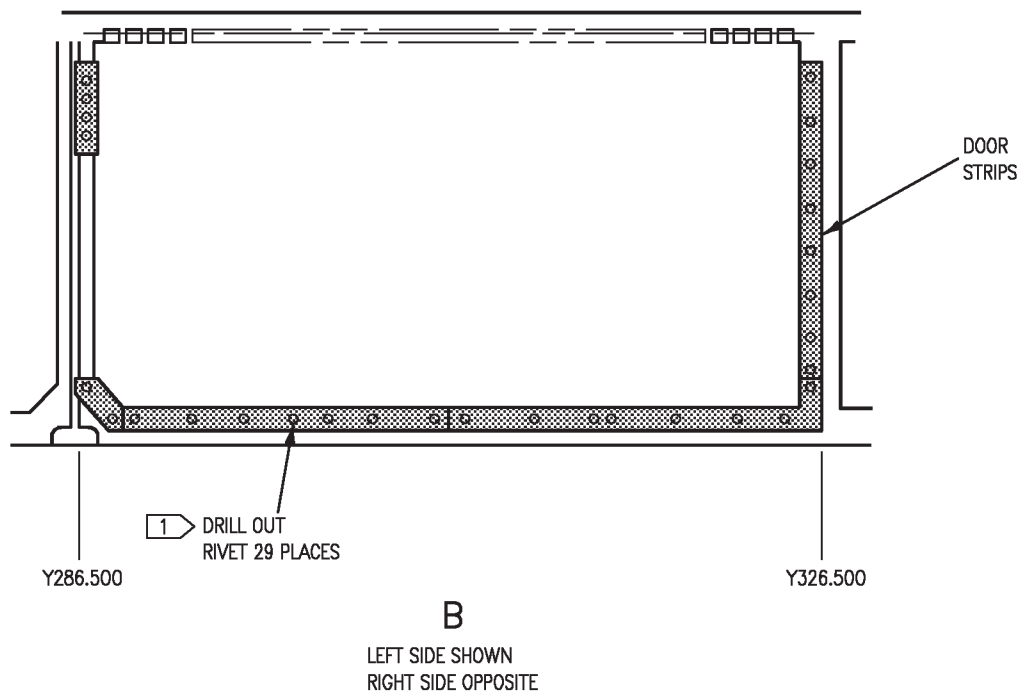
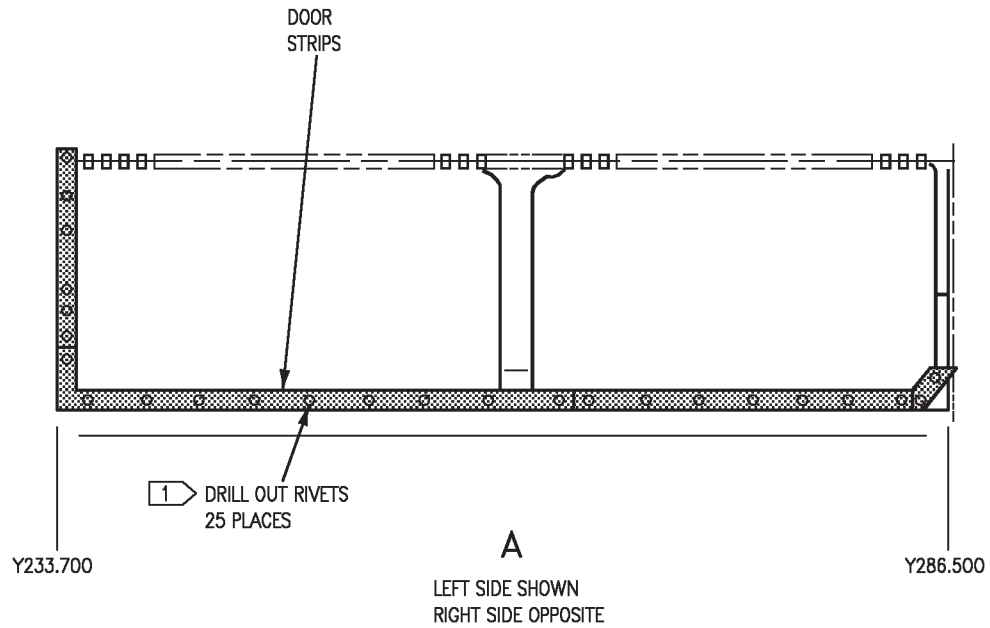
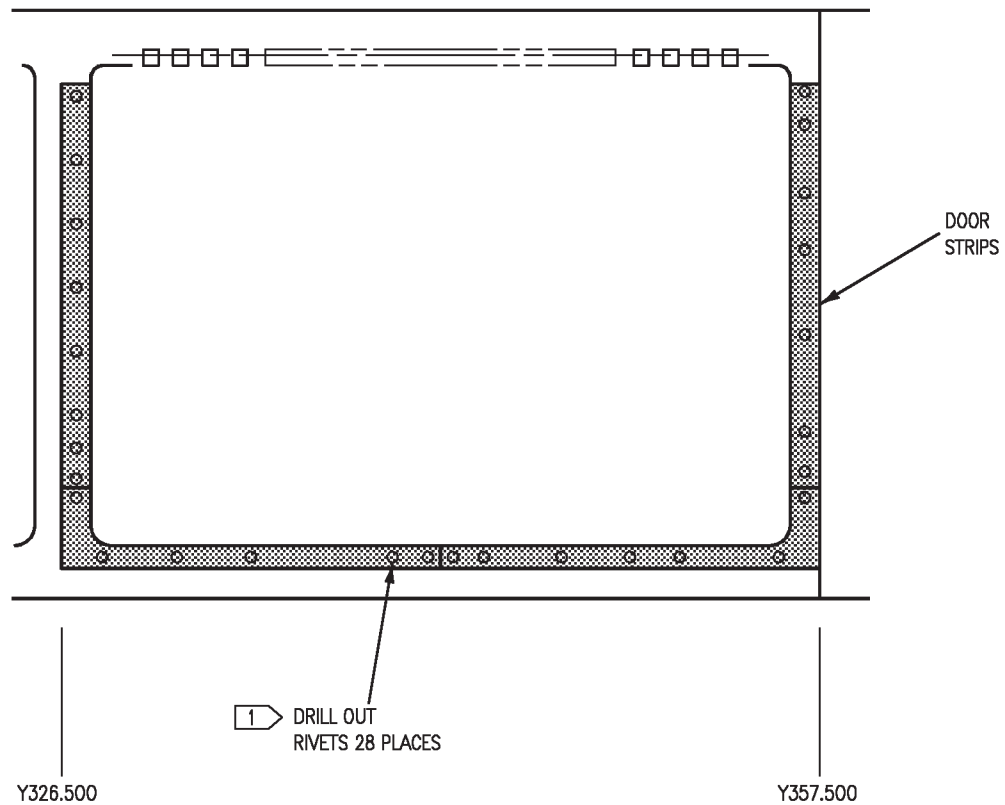


Figure 1. Removal of Door Strips (Sheet 2)



C

LEFT SIDE SHOWN
RIGHT SIDE OPPOSITE

LEGEND

1 USE NUMBER 40 DRILL

Figure 1. Removal of Door Strips (Sheet 3)

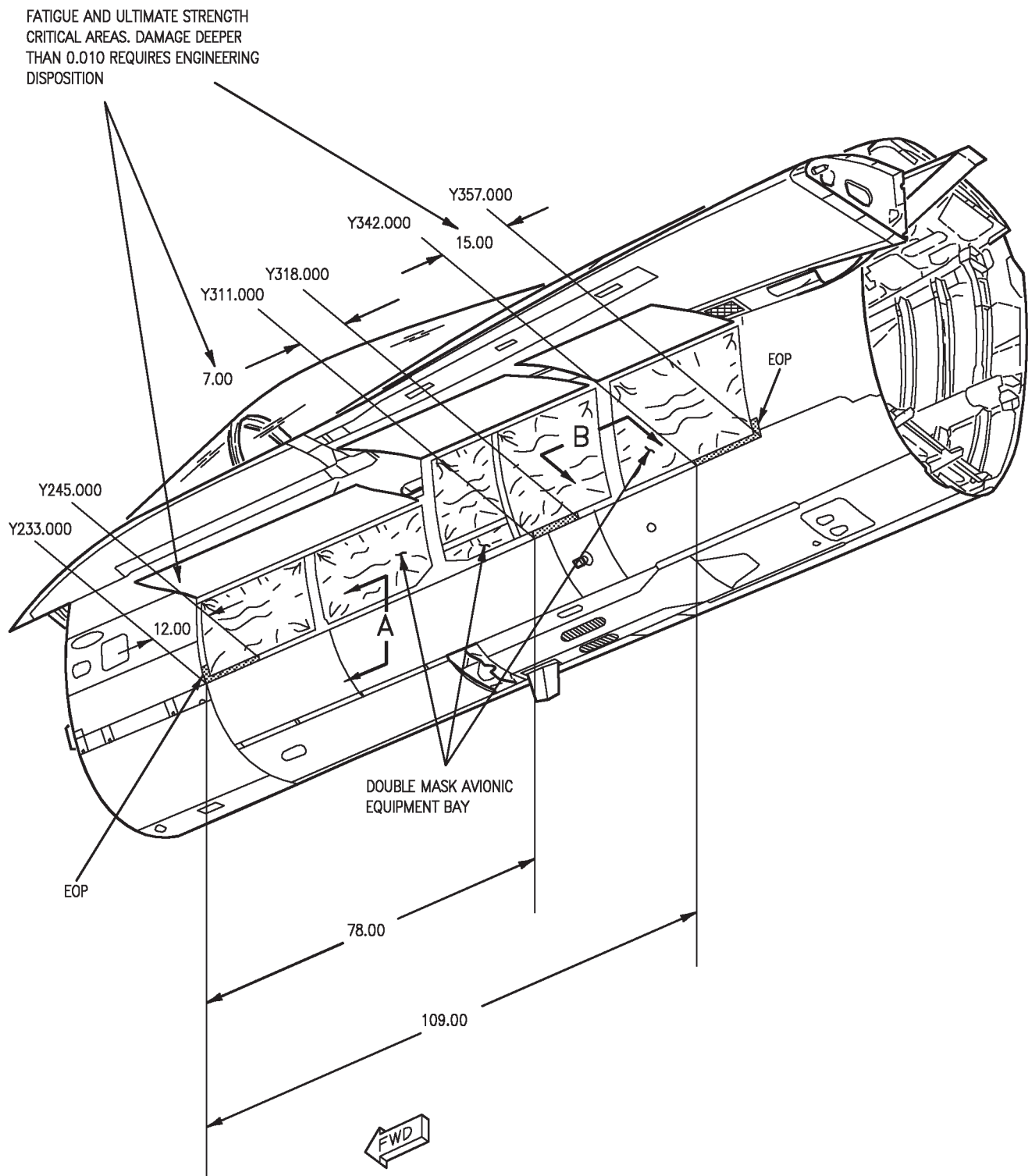
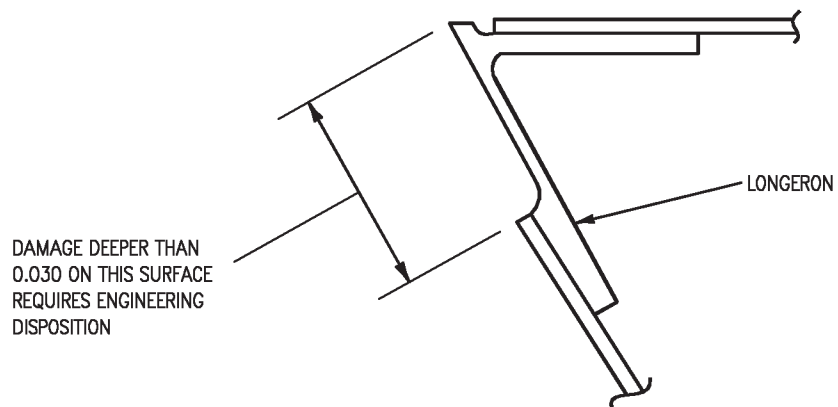


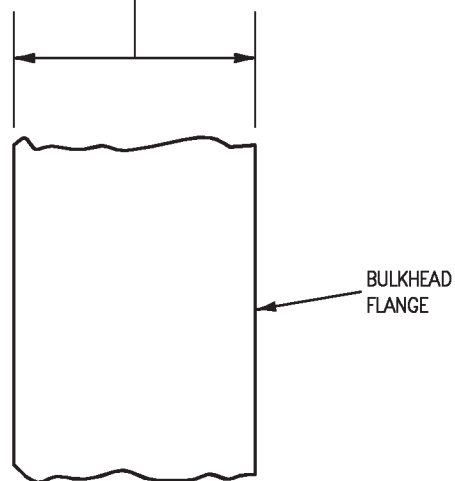
Figure 2. Surface Preparation Door Sills (Sheet 1)



A

TYPICAL FROM Y233.700
TO Y357.500 EXCEPT ON
FATIGUE AND STRENGTH
CRITICAL AREAS

DAMAGE DEEPER THAN
0.010 ON THIS SURFACE
REQUIRES ENGINEERING
DISPOSITION



B

TYPICAL ON BULKHEADS
Y233.700, Y286.500, Y326.500
AND Y357.500

Figure 2. Surface Preparation Door Sills (Sheet 2)

LEGEND

- 1 CORROSION DEPTH LIMITS OF 0.016
TYPICAL FOR LONGERONS AND STRINGERS.
- 2 CORROSION DEPTH LIMITS OF 0.010
TYPICAL FOR BULKHEADS AND FRAMES.
- 3 DAMAGE DEEPER THAN NOTED LIMITS
REQUIRES ENGINEERING DISPOSITION.

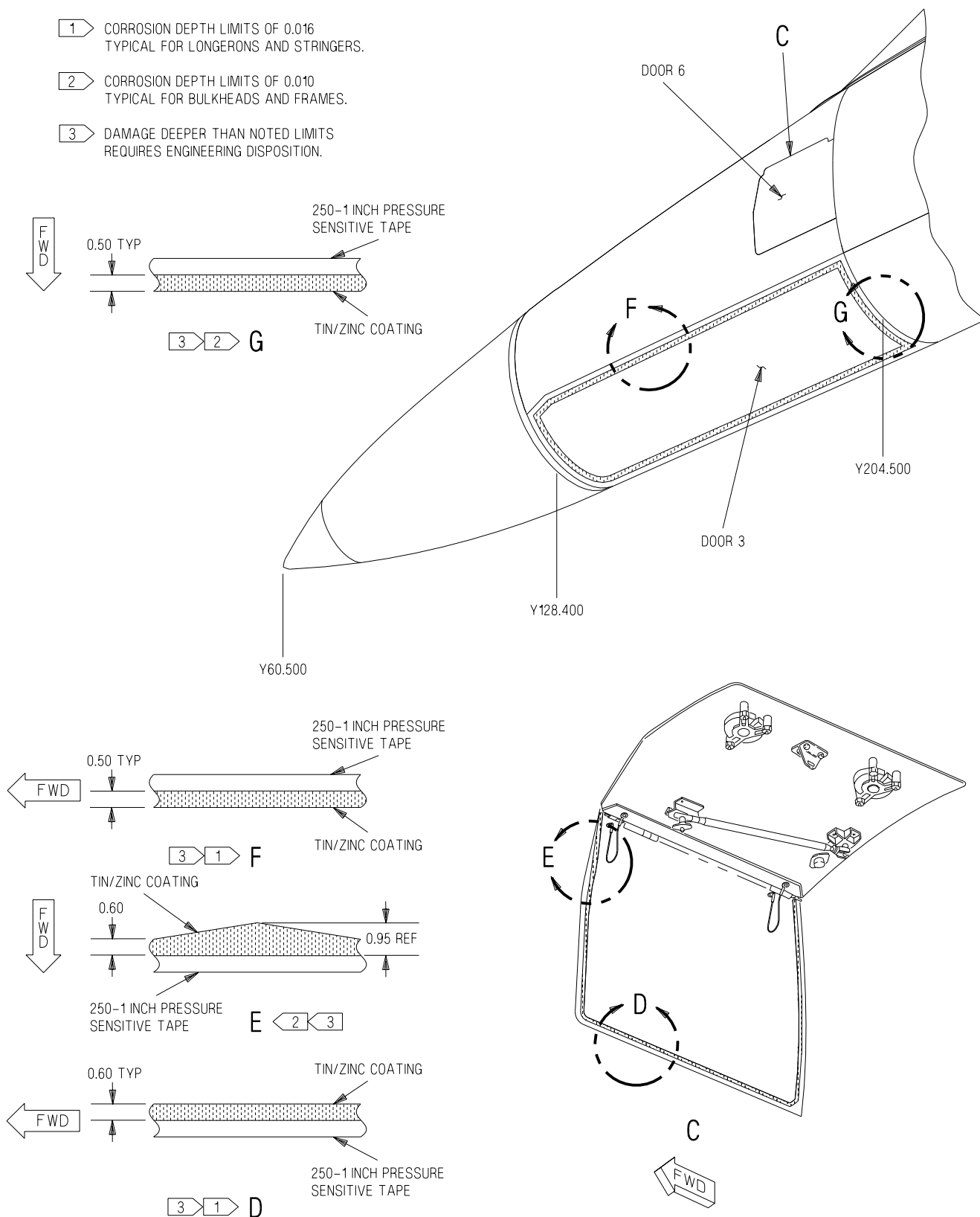


Figure 2. Surface Preparation Door Sills (Sheet 3)

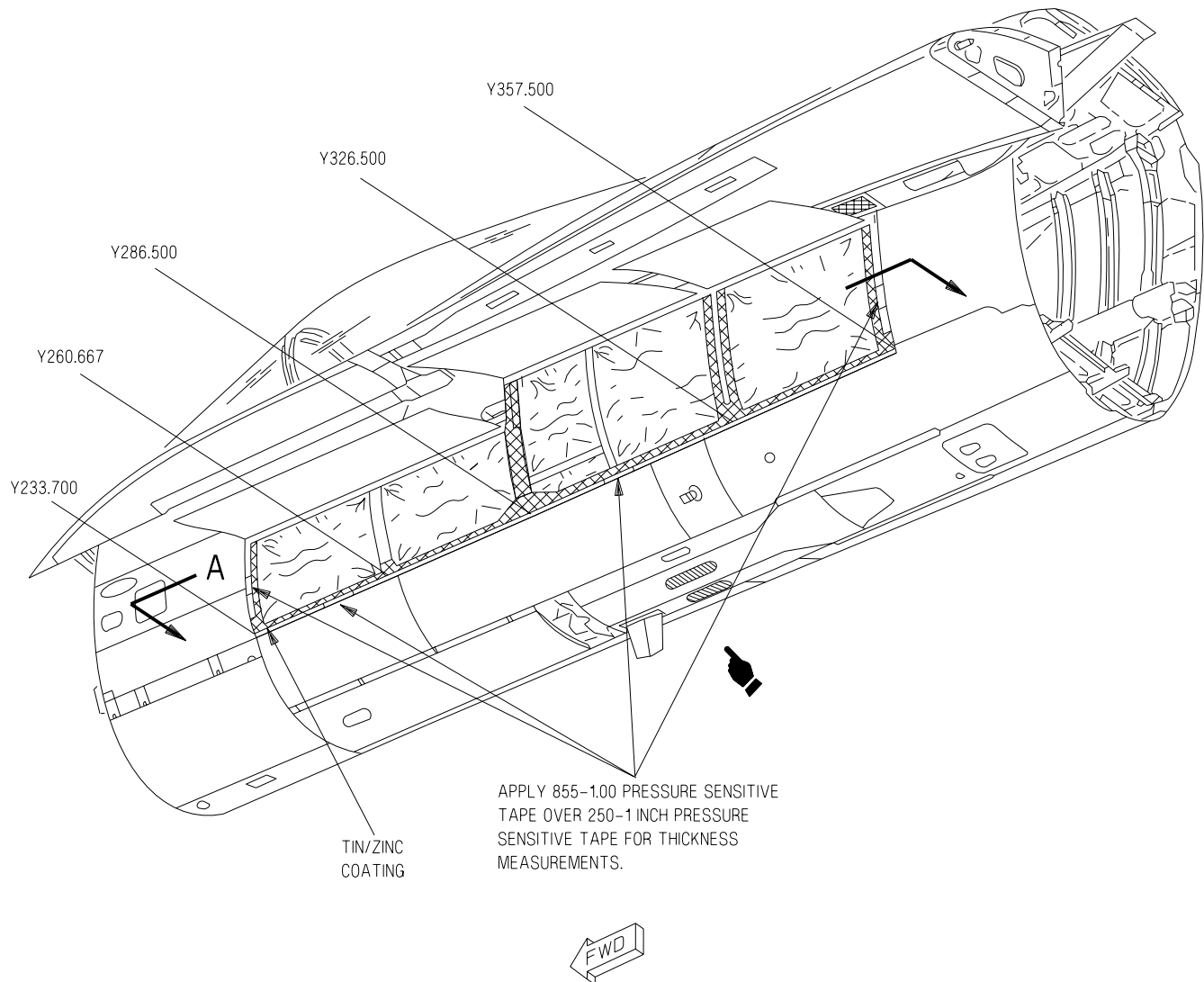


Figure 3. Application of Tin/Zinc Arc Spray (Sheet 1)

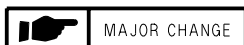
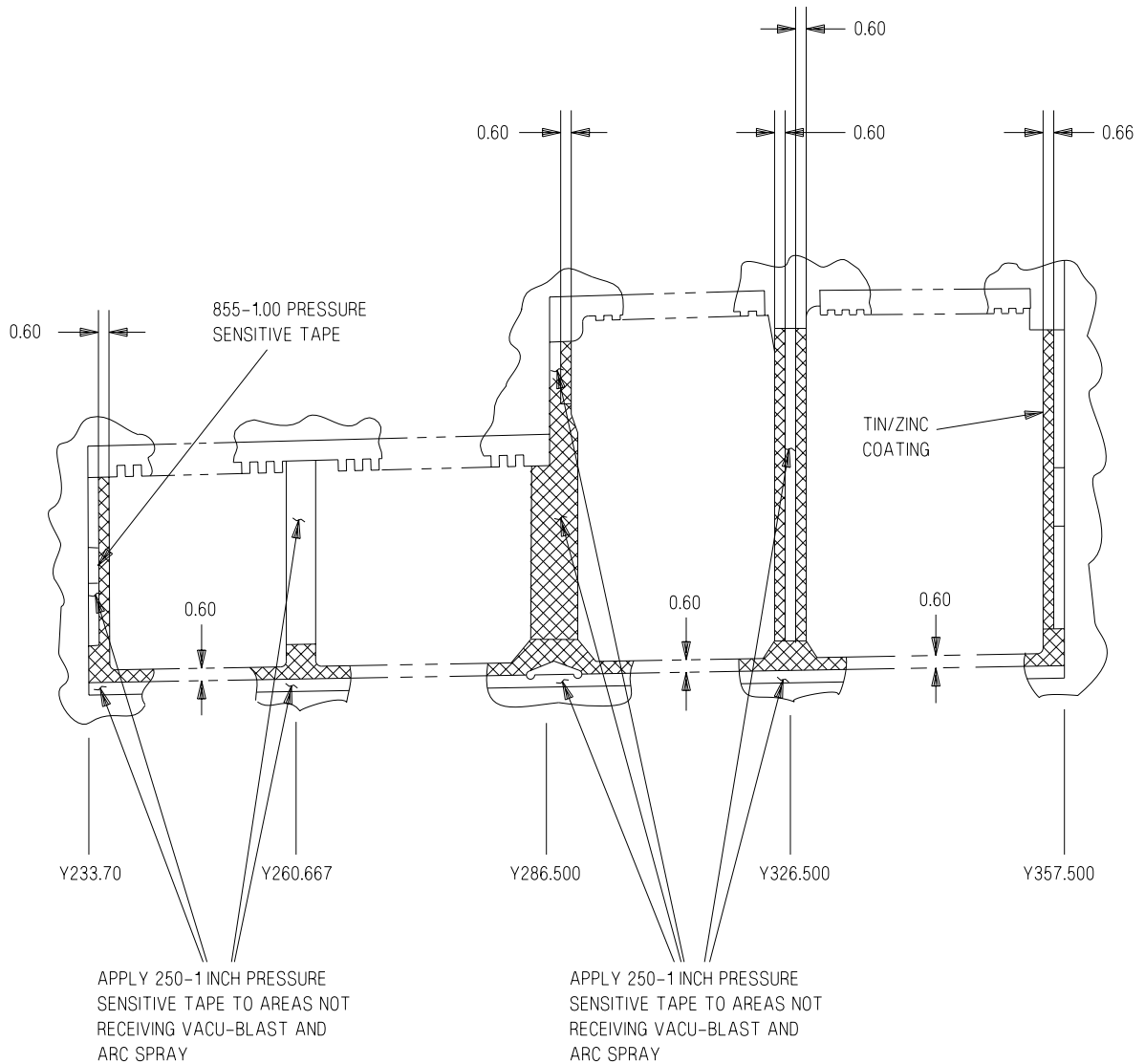


Figure 3. Application of Tin/Zinc Arc Spray (Sheet 2)

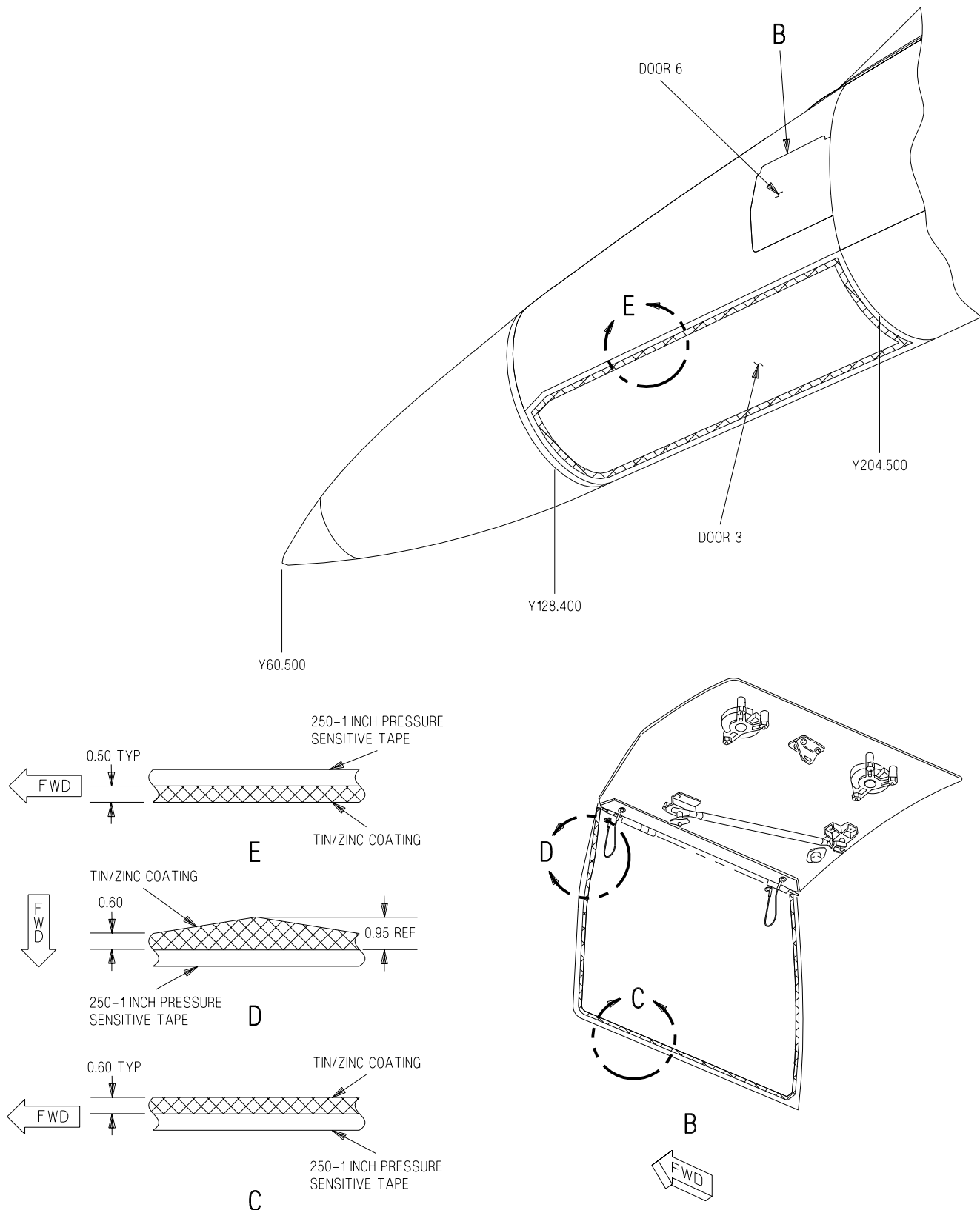


Figure 3. Application of Tin/Zinc Arc Spray (Sheet 3)

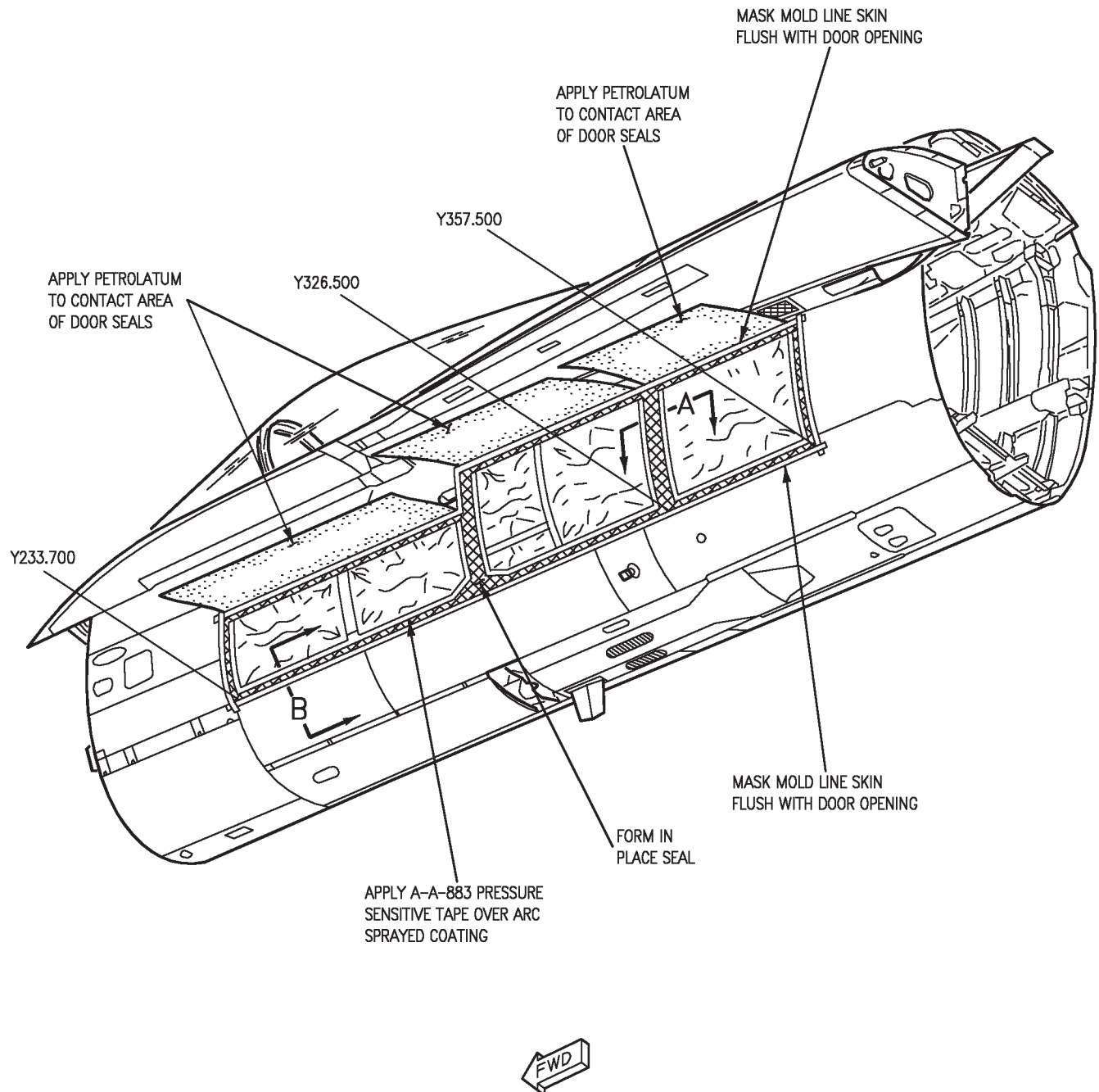
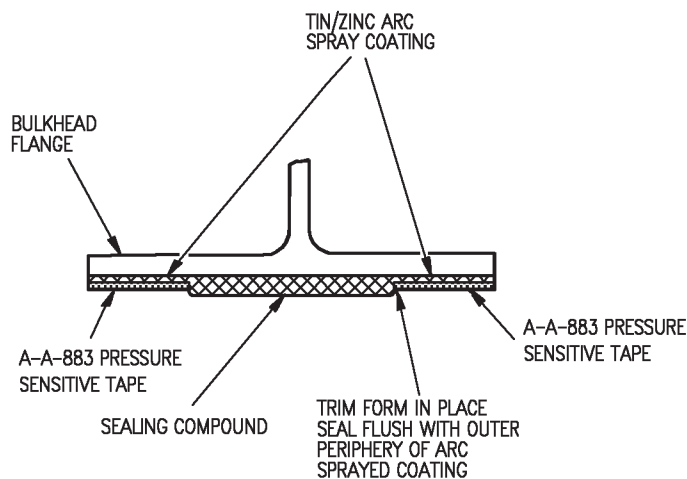
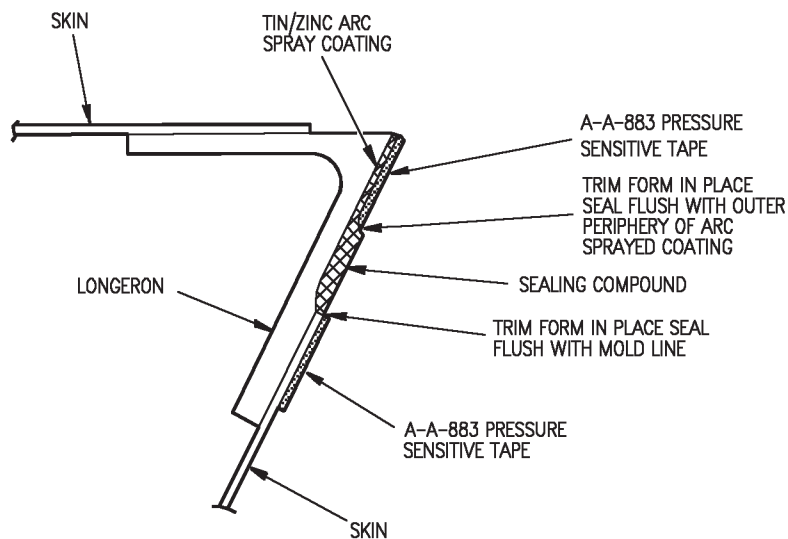


Figure 4. Application of Form In Place Seal Door Sills (Sheet 1)



A

LOOKING DOWN AT
BULKHEAD Y326.500



B

VIEW LOOKING AFT
TYPICAL FROM Y233.700 TO Y357.500

Figure 4. Application of Form In Place Seal Door Sills (Sheet 2)

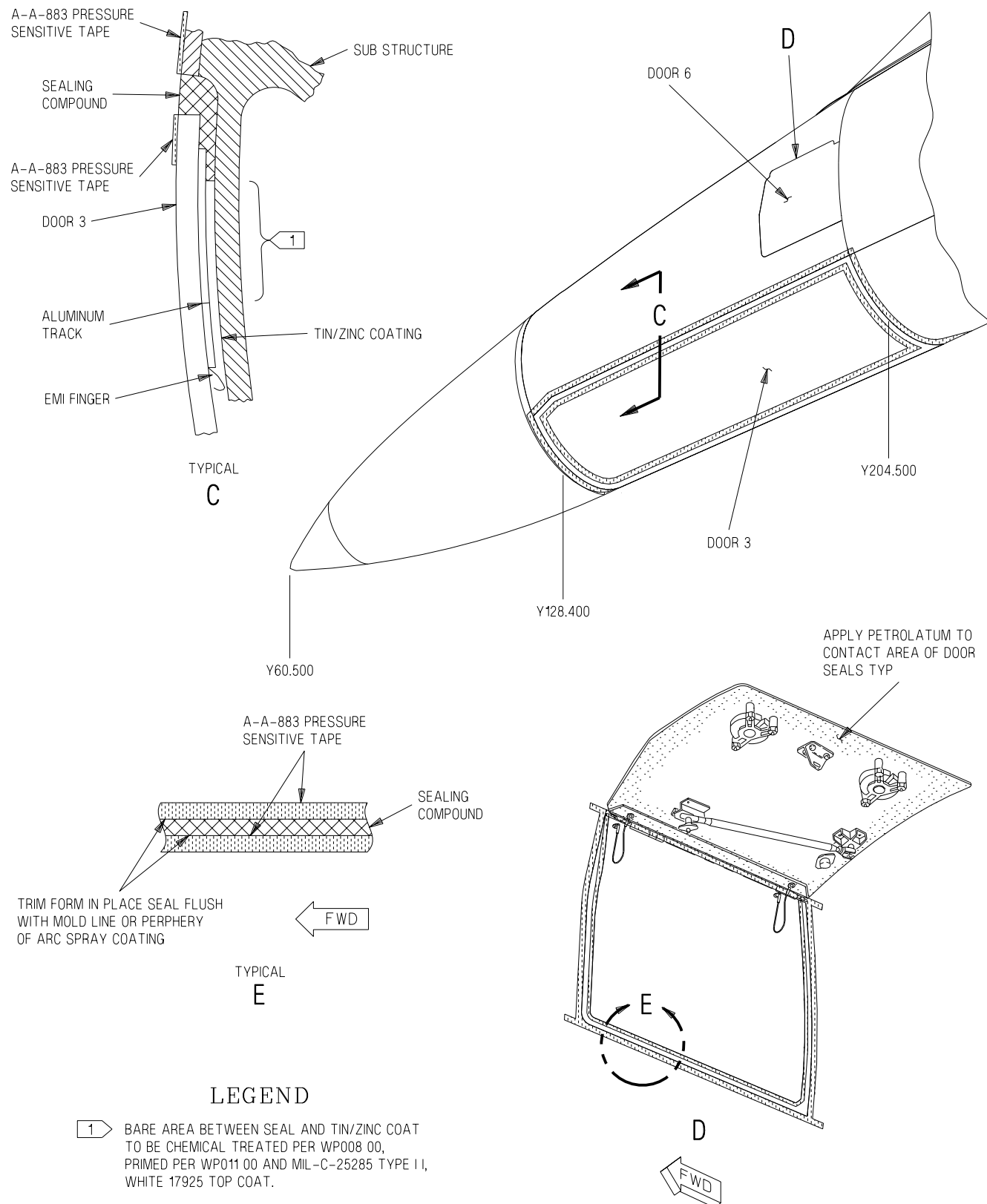


Figure 4. Application of Form in Place Seal Door Sills (Sheet 3)

DEPOT MAINTENANCE

AIRCRAFT CORROSION CONTROL

REMOVAL AND CLEANUP OF SILVER FILLED EPOXY ADHESIVE FROM JOGGLE AREA ON DOOR SILLS 3, 6 AND 10

Reference Material

| | |
|--|------------------|
| Aircraft Fuel Cells and Internal/External Tanks..... | NAVAIR 01-1A-35 |
| Plane Captain Manual | A1-F18AC-PCM-000 |
| Line Maintenance Access Doors..... | A1-F18AC-LMM-010 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application | WP011 00 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Finish System | WP012 00 |
| Fuel System | A1-F18AC-460-300 |
| Ground Support Equipment | WP009 01 |
| Fuel System | A1-F18AE-460-300 |
| Ground Support Equipment | WP010 00 |

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| Removal of Eccobond Adhesive From Joggle Area on Door 6 Sill..... | 3 |
| Removal of Eccobond Adhesive From Joggle Area on Door 10 Sill..... | 4 |
| Safety Precautions | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Galvanic corrosion is being detected in joggle area on door sills 3, 6 and 10. Corrosion caused by Eccobond 56C silver filled epoxy adhesive (Eccobond adhesive) used to fill joggle areas on aircraft 161353 THRU 162477. Removal of Eccobond adhesive; inspection and/or cleanup of corrosion must be done.

3. SAFETY PRECAUTIONS.

a. Make sure aircraft is defueled and systems purged.

(1) Defuel aircraft (A1-F18AC-PCM-000).

(2) Drain residual fuel
(A1-F18AC-PCM-000).

(3) Do purging and inerting methods
(NAVAIR 01-1A-35).

(4) Purge and inert fuel cells until a safe indication is displayed on the combustible and toxic gas indicator (A1-F18AC-460-300, WP009 01 or A1-F18AE-460-300, WP010 00).

b. No smoking allowed in repair area.

c. Dispose of all used rags or other materials in safety disposal containers.

d. The arc spray gun shall never be pointed towards personnel or combustible material.

e. The arc from the arc spray gun shall not be viewed with the unshielded eye.

f. Ventilation shall be provided to quickly remove all dust and fumes from the area.

g. Respirators shall be worn during arc spray operation.

h. Eye protection is required when arc spray equipment is used.

i. No food or drink shall be allowed in work area.

4. PROCEDURES.**Support Equipment Required**

| Part Number or Type Designation | Nomenclature |
|---------------------------------|--|
| GGG-M-125/6 | Respirator With Cartridge |
| Semco No. 250 | Pneumatic Sealant Gun |
| Semco No. 420 | Sealant Gun Nozzle |
| 61-7715-5507-7L Model No. 375 | Brush, Fiber, Rotary Electric Arc Spray System |
| — | X-acto Knife |
| — | 10X Magnifying Glass |

Materials Required

| Specification or Part Number | Nomenclature |
|---------------------------------------|--|
| QQ-T-371 GRADE A | Tin Pig |
| A-A-203 | Tin/Zinc (20-80) Paper, Kraft, Untreated |
| A-A-883, TYPE 1, 1/4IN to 1IN 250-1IN | Tape, Pressure Sensitive |
| CCC-C-440 TYPE 1 CLASS 1 | Tape, Pressure Sensitive |
| TT-I-735, GRADE B EA9321 A/B | Cheesecloth |
| L-F-36 | Isopropyl Alcohol |
| A-A-1047 Grit 180-9X11 | Adhesive |
| 240-9X11 | Faceshield |
| 400-9X11 | Paper, Abrasive |

5. REMOVAL OF ECCOBOND ADHESIVE FROM JOGGLE AREA ON DOOR 3 SILL. See figure 1.

a. Open door 3 (A1-F18AC-LMM-010).

NOTE

Trimming form in place seal may be required to fully expose Eccobond adhesive.

Eccobond adhesive has a dull silver/aluminum appearance slightly darker than buffed aluminum.

b. Inspect aft left and right corner of door 3 sill for joggle filled with Eccobond adhesive. See figure 1 for inspection area.

c. Test resiliency of filler material used in joggle area.

d. If filler material is resilient, filler material is sealant and requires no rework.

e. If filler material is non-resilient, filler material is Eccobond adhesive and must be removed.

f. Mask area surrounding joggle with untreated kraft paper and A-A-883 pressure sensitive tape.

WARNING

Use face shield when removing Eccobond adhesive to prevent injury to eyes.

g. Remove Eccobond adhesive from joggle using rotary fiber brush and x-acto knife.

NOTE

Use vacuum often to prevent spread of Eccobond adhesive particles.

h. Use 10X magnifying glass with suitable light source to carefully inspect joggle area for complete removal of Eccobond adhesive.

i. If corrosion exists under Eccobond adhesive, a maximum of 0.010 inch may be removed by sanding with 240 grit abrasive paper. Corrosion damage deeper than 0.010 inch requires engineering disposition.

NOTE

Door 3 sill area is finished with white, color no. 17875.

j. Before applying finish, do finish system procedures to reworked areas (WP012 00).

k. If form in place seal was damaged during rework, repair per (WP010 00).

l. Remove pressure sensitive tape and untreated kraft paper from door 3 sill joggle area.

m. Close door 3 (A1-F18AC-LMM-010).

6. REMOVAL OF ECCOBOND ADHESIVE FROM JOGGLE AREA ON DOOR 6 SILL. See figure 2.

a. Open door 6 (A1-F18AC-LMM-010).

NOTE

Trimming form in place seal may be required to fully expose Eccobond adhesive.

Eccobond adhesive has a dull silver/aluminum appearance slightly darker than buffed aluminum.

b. Inspect forward lower corner of door 6 sill for joggle filled with Eccobond adhesive. See figure 2 for inspection area.

c. Test resiliency of filler material used in joggle area.

d. If filler material is resilient, filler material is sealant and requires no rework.

e. If filler material is non-resilient, filler material is Eccobond adhesive and must be removed.

f. Mask area surrounding joggle with untreated kraft paper and A-A-883 pressure sensitive tape.

WARNING

Use face shield when removing Eccobond adhesive to prevent injury to eyes.

g. Remove Eccobond adhesive from joggle using rotary fiber brush and x-acto knife.

NOTE

Use vacuum often to prevent spread of Eccobond adhesive particles.

h. Use 10X magnifying glass with suitable light source to carefully inspect joggle area for complete removal of Eccobond adhesive.

i. If corrosion exists under Eccobond adhesive, a maximum of 0.010 inch may be removed by sanding with 240 grit abrasive paper. Corrosion damage deeper than 0.010 inch requires engineering disposition.

NOTE

Door 6 sill area is finished with white, color no. 17875.

j. Before applying finish, do finish system procedures to reworked areas (WP012 00).

k. If form in place seal was damaged during rework, repair per (WP010 00).

l. Remove pressure sensitive tape and untreated kraft paper from door 6 sill joggle area.

m. Close door 6 (A1-F18AC-LMM-010).

7. REMOVAL OF ECCOBOND ADHESIVE FROM JOGGLE AREA ON DOOR 10 SILL. See figures 3, 4, and 5.

a. Open door 10 (A1-F18AC-LMM-010).

NOTE

Trimming form in place seal may be required to fully expose Eccobond adhesive.

Eccobond adhesive has a dull silver/aluminum appearance slightly darker than buffed aluminum.

b. Inspect forward lower left and right corner of door 10 sill for joggle filled with Eccobond adhesive. See figure 3 for inspection area.

c. Test resiliency of filler material used in joggle area.

d. If filler material is resilient, filler material is sealant and requires no rework.

e. If filler material is non-resilient, filler material is Eccobond adhesive and must be removed.

f. Mask area surrounding joggle with untreated kraft paper and A-A-883 pressure sensitive tape.

WARNING

Use face shield when removing Eccobond adhesive to prevent injury to eyes.

g. Remove Eccobond adhesive from joggle using rotary fiber brush and x-acto knife.

NOTE

Vacuum frequently to prevent spread of Eccobond adhesive particles.

h. Use 10X magnifying glass with suitable light source to carefully inspect joggle area for complete removal of Eccobond adhesive.

i. If corrosion exists under Eccobond adhesive, a maximum of 0.010 inch may be removed by sanding with 240 grit abrasive paper. Corrosion damage deeper than 0.010 inch requires engineering disposition.

j. Vacuum clean any loose particles.

WARNING

Isopropyl alcohol is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

k. Clean joggle area on longeron and former with clean cheesecloth moistened with isopropyl alcohol.

WARNING

EA9321 A/B adhesive is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

l. Prepare EA9321 A/B adhesive (A1-F18AC-SRM-200, WP011 00).

m. Apply adhesive in joggle area to a level slightly higher than tab area on longeron using sealant gun with number 420 nozzle. See figure 4.

n. Cure adhesive (A1-F18AC-SRM-200, WP011 00).

NOTE

EMI fingers must contact area in joggle where adhesive was applied.

o. Sand adhesive even with surface contacting EMI fingers using 240 grit abrasive paper.

p. Vacuum clean any loose particles.

q. Clean joggle area to be arc sprayed by wiping with clean cheesecloth moistened with isopropyl alcohol.

r. Mask areas not receiving arc spray coating using 250-1 inch pressure sensitive tape and untreated kraft paper. See figure 5.

WARNING

The arc spray is an electrically initiated coating and sparks are generated inside gun and is a fire risk. Make sure safety precautions, paragraph 3, step a, has been complied with.

s. Hold arc spray gun 6 to 12 inches from surface.

t. Spray tin/zinc coating so a progressive buildup occurs over complete surface of part designated for coating.

u. Remove any roughness from sprayed surface by sanding lightly with 400 grit abrasive paper.

v. Vacuum clean any metal dust remaining from arc spray operation.

w. If cracks or blisters develop in coating during spray operation, repair damaged areas.

(1) Lightly hand sand damaged area using 180 grit abrasive paper to remove defective tin/zinc coating. Bevel edges of tin/zinc surrounding area to be resprayed.

(2) Vacuum clean any loose particles.

NOTE

Respray must be within 30 minutes of first application.

(3) Apply tin/zinc coating per paragraph 7, steps s through v.

- x. Check adhesion of tin/zinc coating.

NOTE

Recommended length of tape is approximately 8 inches. Size tape accordingly to areas where part will not allow this contact length.

(1) Apply a strip of 250-1 pressure sensitive tape to tin/zinc coating.

(2) Press pressure sensitive tape on tin/zinc coating using firm hand pressure to establish good adhesion.

(3) Lift one end of pressure sensitive tape.

(4) With lifted end of pressure sensitive tape at 45° to surface, remove remainder of pressure sensitive tape with one abrupt motion.

NOTE

Area shall be considered to have failed adhesion test if tin/zinc coating is removed from an area larger than 1 square inch.

(5) Inspect surface for any removal of tin/zinc coating.

NOTE

Use new 250-1 inch pressure sensitive tape with each tape pull.

(6) If tin/zinc coating is removed from an area 1 square inch or less, do three more tape pulls. Rotate tape 60° after each pull across edge of failed area.

NOTE

Area is considered a localized failure if no more tin/zinc coating was removed during retest.

(7) Touch up localized failed areas 1 square inch or less per paragraph 7, step w, substeps (1) through (3).

(8) If more than 1 square inch of failed area exists, repeat paragraph 7, steps s through x.

y. Remove pressure sensitive tape and untreated kraft paper used in masking procedures, paragraph 7, step r.

NOTE

Structure in avionic bays are finished with white color no. 17875.

z. Before applying finish system, do finish system procedures to areas on longeron and former not receiving arc spray coating (WP012 00).

aa. Slightly overlap edge of tin/zinc arc spray with primer and finish.

ab. If form in place seal was damaged during rework, repair per (WP010 00).

ac. Remove pressure sensitive tape and untreated kraft paper used in masking procedures, paragraph 7, step f.

ad. Close door 10 (A1-F18AC-LMM-010).

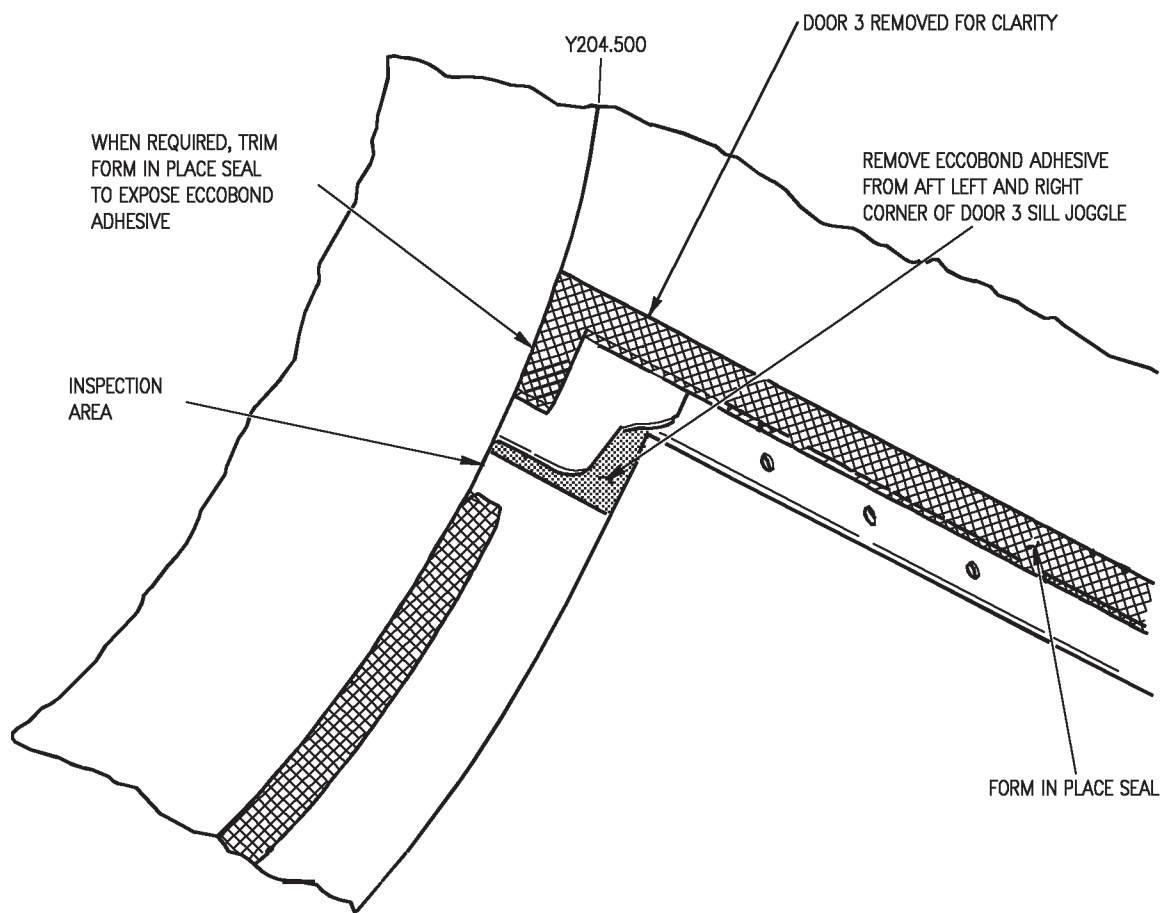


Figure 1. Removal of Eccobond Adhesive From Door 3 Joggle Area

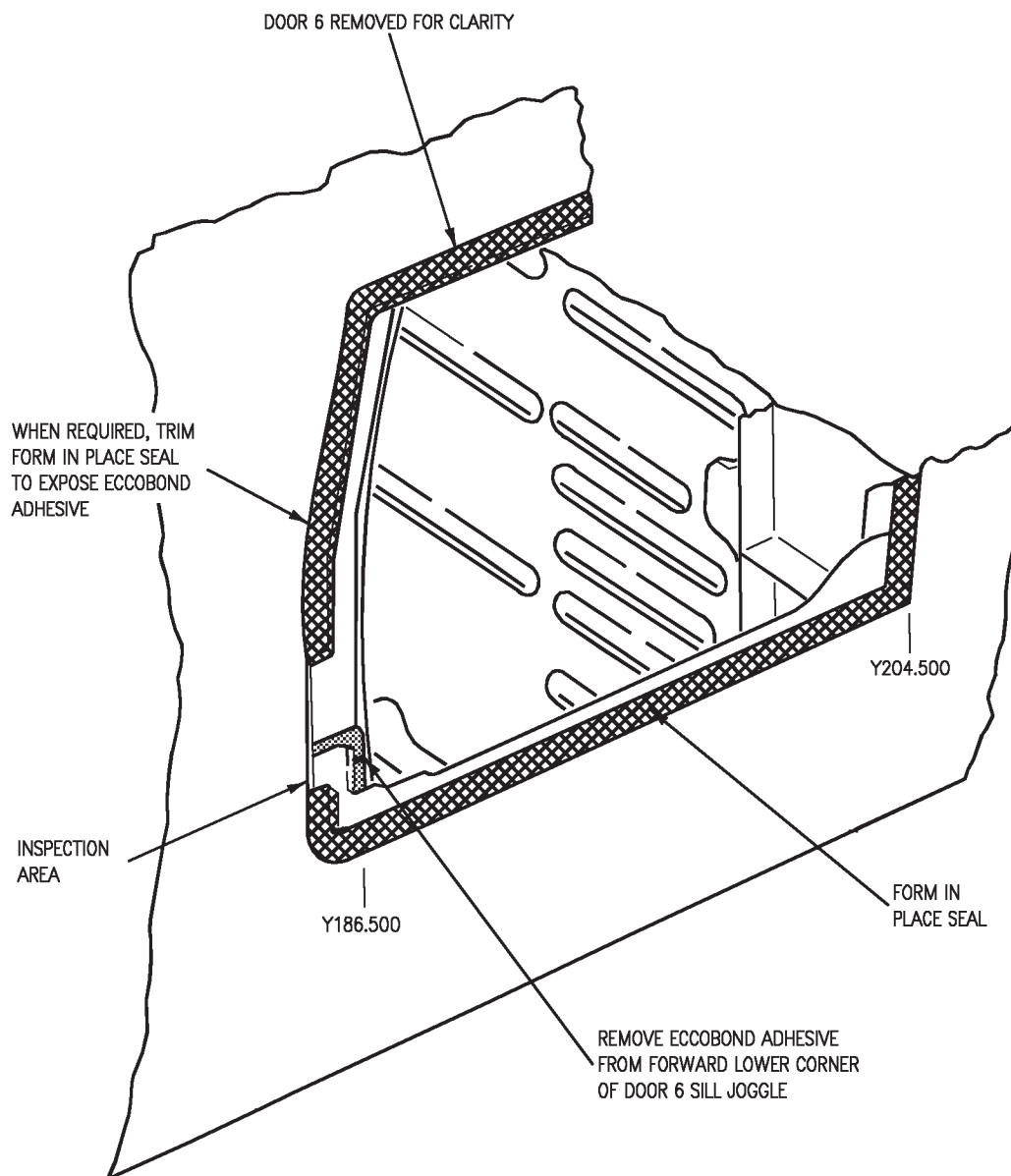


Figure 2. Removal of Eccobond Adhesive From Door 6 Joggle Area

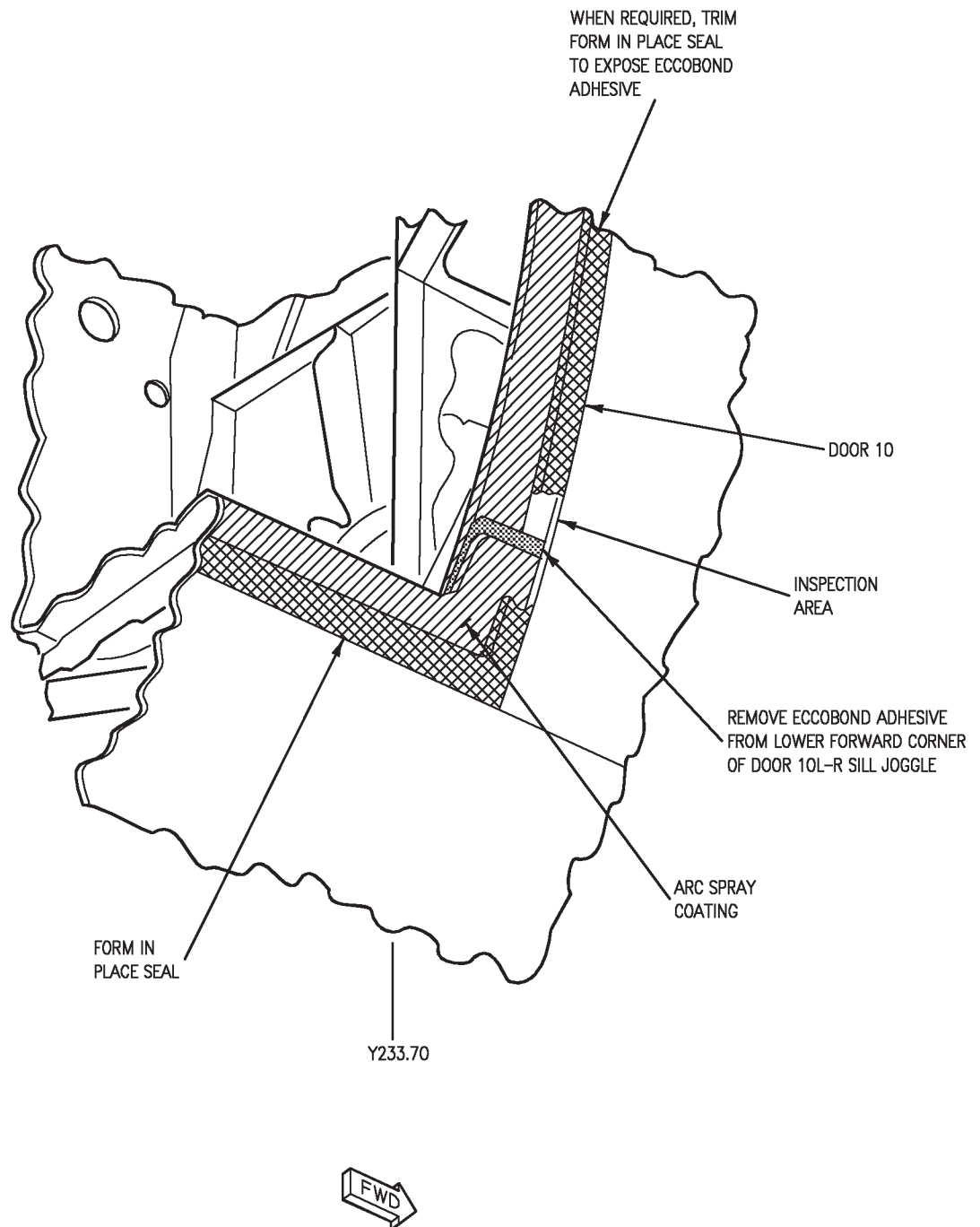


Figure 3. Removal of Eccobond Adhesive From Door 10 Joggle Area

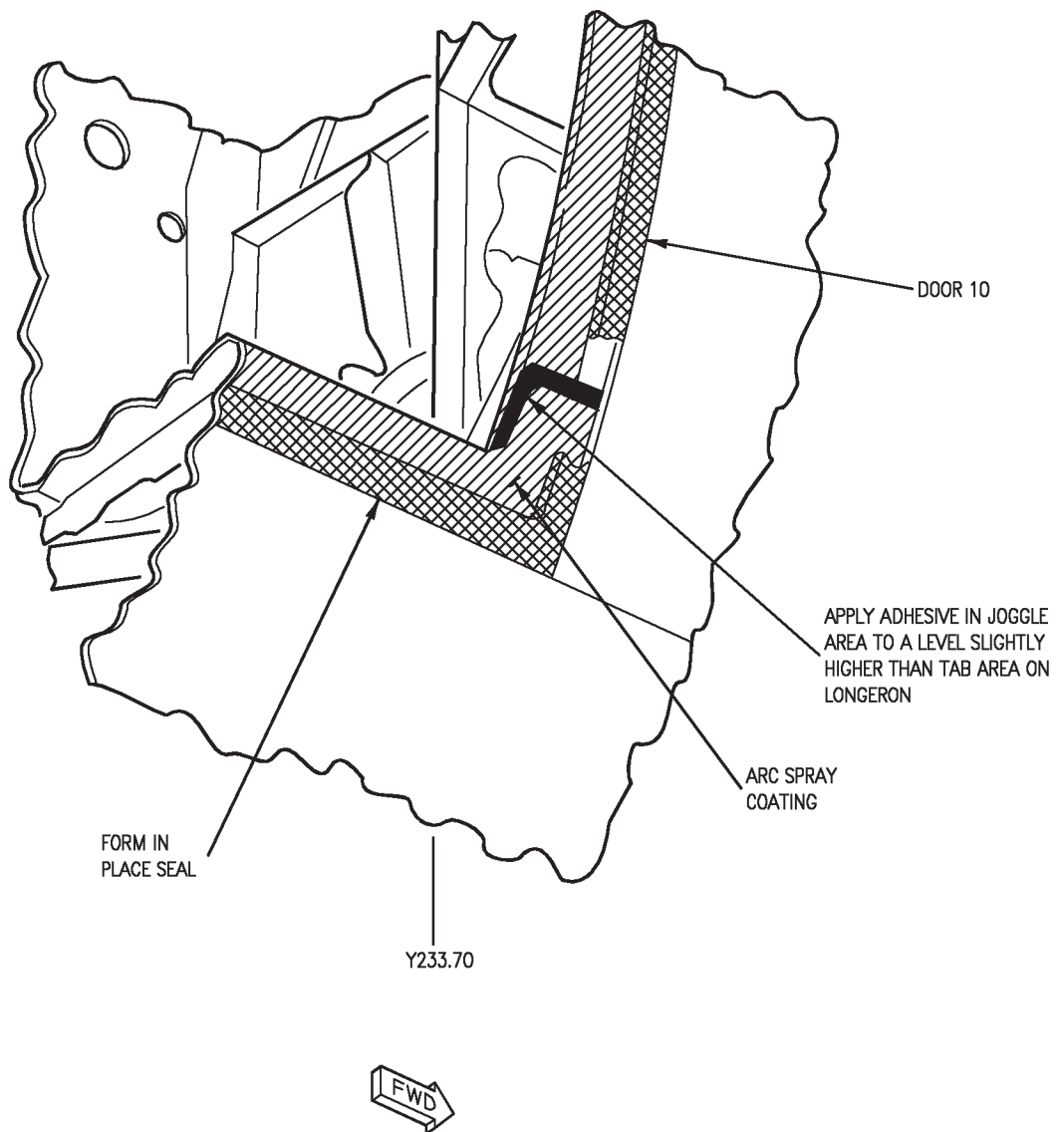


Figure 4. Application of Adhesive In Joggle Area

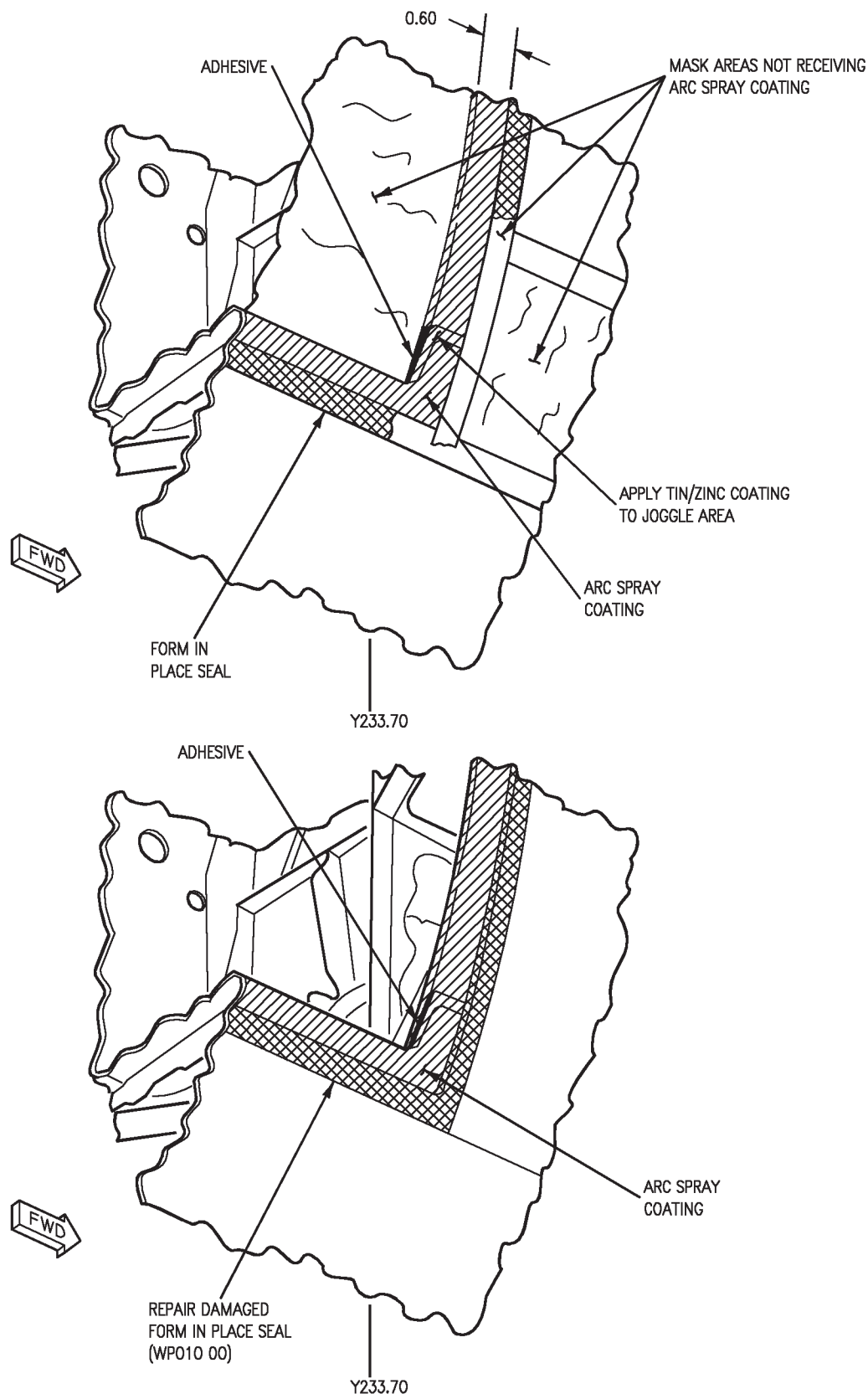


Figure 5. Application of Arc Spray to Joggle Area

DEPOT MAINTENANCE**AIRCRAFT CORROSION CONTROL****REMOVAL AND CLEANUP OF CORROSION FROM MAIN LANDING GEAR AXLE LEVER ASSEMBLY****PART NO. 74A410506**

Reference Material

| | |
|---|-----------------------------------|
| Plane Captain Manual | A1-F18AC-PCM-000 |
| Line Maintenance Manual..... | A1-F18AC-LMM-000 |
| Nondestructive Inspection..... | A1-F18AC-SRM-300 |
| Penetrant Method..... | WP004 00 |
| Magnetic Particle Method..... | WP006 00 |
| Main Landing Gear Axle Lever Assembly Crack Verification..... | WP069 04 |
| Main Landing Gear Axle Lever Wall Thickness Measurement..... | WP069 08 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Landing Gear, Arresting Hook, and Launch Bar, Finish System and Markings | WP042 00 |
| Landing Gear and Related Systems..... | A1-F18AC-130-300 |
| MLG Axle Lever Assembly and MLG Lever Swing Joint Support | WP040 00 |
| Shot Peening of Metal Components | Contact Depot Level Field Team |

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| Corrosion Removal..... | 4 |
| Magnetic Particle NDI..... | 4 |
| Primer and Paint Application..... | 5 |
| Return Aircraft to Service | 5 |
| Surface Reconditioning | 5 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Corrosion pitting is being detected on machined 300M high strength steel main landing gear (MLG) axle lever assemblies. Corrosion is caused by damage to the underlying sacrificial anodic paint system and coatings on hard landing NDI inspection areas and areas on forward surfaces. Inspection and/or cleanup are required to prevent stress corrosion cracking and final catastrophic failure. The external surface is IVD aluminum coated or cadmium plated. The finish system is epoxy primer and polyurethane topcoat. The following corrosion removal procedure is intended for main landing gear axle lever, P/N 74A410506-1009/-1010/-1011/-1012. For levers with P/N 74A410506-1005/-1006, contact FST for disposition. For MLG axle lever identification, see figure 2, page 8. For system maintenance of this part, refer to (A1-F18AC-130-300, WP040 00).

3. PROCEDURES.**Support Equipment Required**

| Part Number or Type Designation | Nomenclature |
|---------------------------------|--|
| DA200 | Magnetic Inspection Probe |
| GG-M-95 | 10 X Magnifier |
| PD-238 | Ultrasonic Transducer Group |
| SCW 1028 | Portable Shot Peen |
| USN-52 | Ultrasonic Flaw Detector |
| ZB-26 (M-16) | Black Light, Portable |
| ZA-43 or equivalent | Fluorescent Penetrant Inspection Kit, Portable |
| 11001 | Sander-Filer, Portable |
| 2214E | Step Wedge, 1018 Steel |

Materials Required

| Specification or Part Number | Nomenclature |
|---------------------------------|---------------------|
| AMS 2431/1 Size SAE 170 | Cast Steel Shot Tin |
| CCC-C-46 TY1CL4 (CAGE 80244) | Cloth, Cleaning |

Materials Required (Continued)

| Specification or Part Number | Nomenclature |
|---|---|
| CODE 1010 | Cleaner Deoxidizer |
| CODE 2023 | Cadmium Solution (No Bake, LHE) |
| GGG-C-520, TYPE 1, GRA or B | Paper, Abrasive |
| MIL-A-9962TY1CL1 GRA or BX9X11 (CAGE 80244) | Mat, Abrasive (180-600 Grit) |
| MIL-B-131, CL1 | Barrier Film |
| MIL-I-19166 1IN WIDE (CAGE 81349) | Insulation Tape |
| MIL-PRF-23377 TYPE 1 | Primer |
| MIL-PRF-85285 TYPE 1 | Polyurethane Paint, Insignia White |
| MIL-PRF-85570 | Aircraft Cleaning Compound |
| MIL-R-81294 (CAGE 81349) | Remover, Paint |
| MIL-T-81772-TY1 (CAGE 81349) | Paint Thinner |
| MIL-T-23397, TYII P-C-451E | Adhesive Tape Cloth, Abrasive Aluminum, Oxide (320 grit) |
| ULTRAGEL 11 (CAGE 57869) | Ultrasonic Couplant |
| ZL 22 | Penetrant, Fluorescent |

4. AIRCRAFT PREPARATION.

a. Remove electrical and hydraulic power (A1-F18AC-LMM-000).

b. Mask areas surrounding affected surfaces using barrier film and adhesive tape. Raise tape about 0.5 inches along the bottom of the area to prevent runoff of the chemical remover.

CAUTION

Use of acid based paint removers is not authorized. When high strength steels (typically 180 ksi and above) are exposed to acid paint removers, a reaction on the metal surface produces hydrogen, which diffuses into the bulk metal, accumulating at grain boundaries and weakening the structure. If the part is under load or contains residual manufacturing stresses, sudden catastrophic failure can occur. Use only paint removers specified.

Do not use chemical paint removers past their expiration date. Over aged chemical removers can seriously degrade, i.e., hydrogen embrittle the structural properties of high strength steel parts. Under no circumstances shall paint removers be used after their expiration date on high strength steel aircraft parts; for example, landing gear.

NOTE

Do not allow paint remover to contact synthetic rubber parts, aircraft tires, fabric, and acrylic transparencies.

c. Use a paint or acid brush to apply a thick, continuous coating of paint remover to cover the surface to be stripped. Allow paint remover to remain on surface for enough length of time to wrinkle and completely lift the paint, usually 10 to 40 minutes.

CAUTION

Do not use metallic or abrasive scrapers to remove paint finishes. Use of such scrapers may cause damage to base metal. Use only nonmetallic scrapers or brushes to assist in removing persistent paint finishes.

d. Reapply paint remover as required in the areas where paint remains tight or where the material has dried. Micarta scrapers or fiber brushes may be used to assist in removing persistent paint.

CAUTION

Do not allow rinse water to stand on exposed MLG lever arm bare material. Wipe the MLG lever arm dry to remove any moisture to prevent flash corrosion using a dry cloth.

NOTE

Do not rinse with water until all paint has been loosened. Water greatly reduces the paint stripping efficiency of the remover.

Do not allow rinsed paint remover or contaminated rinse water to contact other painted surfaces.

e. Remove loosened paint and residual paint remover by washing and scrubbing the surface with clean water and a stiff nylon bristle brush or an abrasive pad.

f. After thorough rinsing, remove masking materials and thoroughly clean the area with a solution of one part aircraft cleaning compound (MIL-PRF-85570, TYPE II) in nine parts of clean water to remove paint remover residues. Trap any residue IAW with local safety environmental regulations.

g. Feather edges of repair area using 320 grit abrasive cloth and wipe clean repair area using (MIL-T-81772 TYPE 1) paint thinner.

h. Using 10X magnifier, visually inspect area A from figure 1 for crack indications.

5. MAGNETIC PARTICLE NDI.



Exposure of bare base metal (300M) to the environment shall be minimized. Exposed 300M steel has high susceptibility to corrosion, which could lead to catastrophic failure. Refinish untreated parts as soon as practical.

NOTE

For magnetic particle inspection, remove paint enough to allow probe legs to span the area of interest.

a. Do magnetic particle NDI for cracks (A1-F18AC-SRM-300, WP006 00). Use magnetic inspection probe DA200.

b. If cracks are found, remove and replace MLG axle lever assembly (A1-F18AC-130-300, WP040 00). Rig new MLG axle lever assembly making sure 0.010 inch minimum clearance between axle lever assembly and bellcrank (A1-F18AC-130-300, WP040 02). Return to flight status.

c. If no cracks are found, go to corrosion removal below.

6. CORROSION REMOVAL.

NOTE

Apply fluorescent penetrant for inspection during and after material removal per the steps below.

a. Remove loose corrosion, dirt and grease from the surface of the MLG lever arm inspection areas.

b. Apply fluorescent penetrant to corroded area before any metal removal is done.



Keep the area wet with penetrant for one hour, then remove the excess penetrant.

Make sure of careful use of dynaflex to avoid abrasive burning of MLG lever arm material.

NOTE

If corrosion is noted outside of defined areas illustrated in figure 1, contact NADEP North Island engineering for disposition.

c. Blend the corrosion area using a dynaflex 11001 starting with 180 grit and finishing with 320 grit or finer aluminum oxide abrasive cloth. Blend to a 30:1 ratio. The use of grinding stones or deburring tools is not allowed.

NOTE

The person doing the material removal may do this part of the penetrant inspection process. NDI certification not required.

d. After corrosion is no longer visible at 7X and 10X magnification, inspect for remaining corrosion using black light and 7X to 10X magnification under heavy shade. Do not apply developer at this step. Remove added material and repeat as required.

e. Do fluorescent penetrant inspection to detect remaining pitting and intergranular corrosion (A1-F18AC-SRM-300, WP004 00).

f. After penetrant removal and 5 to 10 minutes dwell, inspect the surface for indications before applying developer. If intergranular corrosion exists, it is best detected at this stage. To the unaided eye, indications may be similar to background from not enough removed penetrant. On evaluation with 10X magnification, the indications will be seen as fine cracks.

g. If pitting remains, repeat steps c through f.

h. Do ultrasonic wall thickness measurement (A1-F18AC-SRM-300, WP069 08).

i. If the measured wall thickness is less than the minimum limits specified on the maps at any given point, contact FST for disposition.

7. SURFACE RECONDITIONING.

a. Contact depot level field team to shot peen blended area. Depot level field team to shot peen blended area using a portable shot peen unit adjusted to 0.008A-0.012A intensity with size S170 steel shot.

b. Clean and prep surface for application of low hydrogen embrittlement (LHE) cadmium using cleaner deoxidizer CODE 1010.



Use of improper cadmium may lead to hydrogen embrittlement and eventual catastrophic failure of component. Use cadmium only as specified.

NOTE

Baking is not required if using dalic cadmium CODE 2023.

c. Brush plate using cadmium LHE for high strength steels.

d. Wipe the surface clean with paint thinner.

8. PRIMER AND PAINT APPLICATION.

NOTE

Only use the paint and primer system specified in this work package. Unauthorized deviations in the primer/paint system will result in not enough corrosion protection and ultimately catastrophic failure.

a. Using a sempo brush or alternate application method, apply MIL-P-23377, TYPE 1, CLASS C primer to the area. Allow primer to dry a minimum of 30 minutes. Apply second coat. The primer will be ready for paint application in approximately 2 hours (QA).

b. Using sempo brush or alternate application method, apply two coats of MIL-PRF-85285, TYPE I insignia white polyurethane topcoat over the primer (QA).

9. RETURN AIRCRAFT TO SERVICE.

a. Reinstall hardware (A1-F18AC-130-300, WP040 00) and do MLG rigging as required to make sure interference free extension and retraction (A1-F18AC-130-300, WP040 00).

b. Remove aircraft from jacks (A1-F18AC-LMM-000).

c. Remove safety and protective device(s) (A1-F18AC-PCM-000).

d. Reapply electrical and hydraulic power (A1-F18AC-LMM-000).

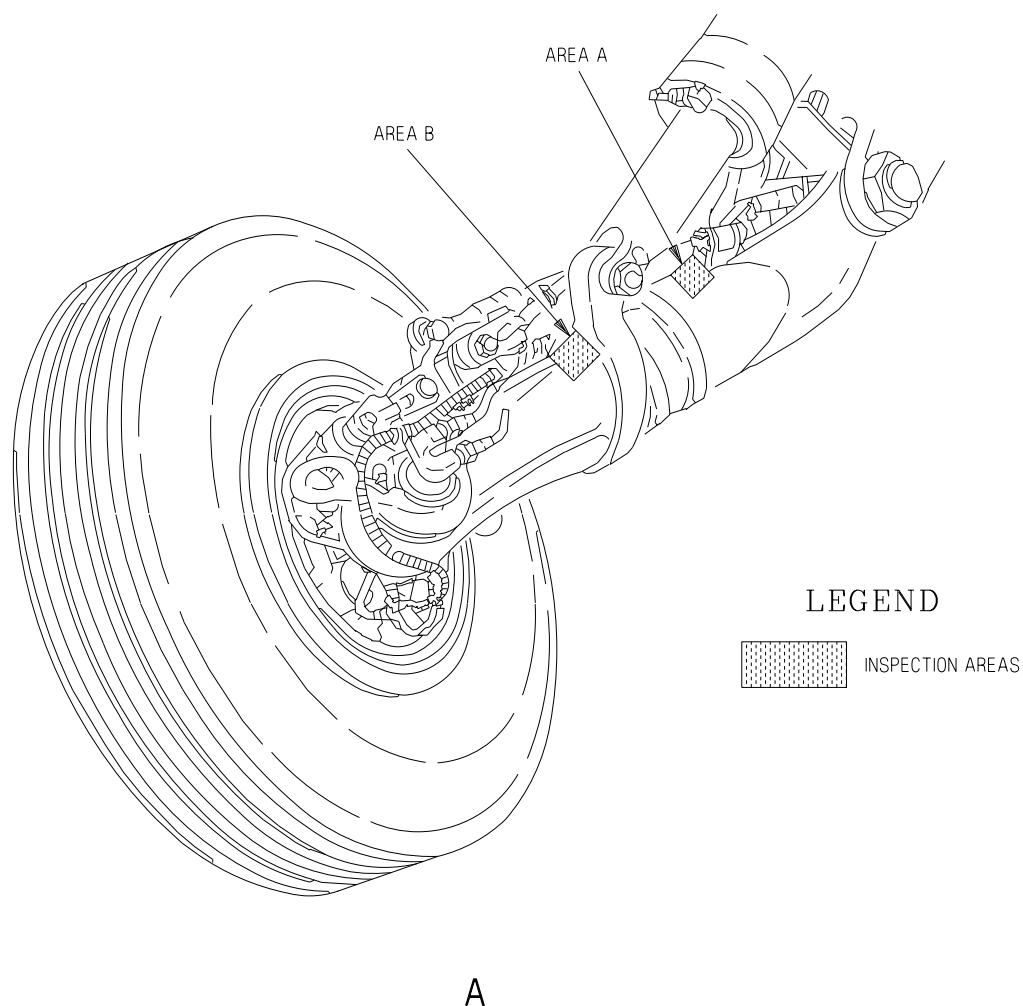
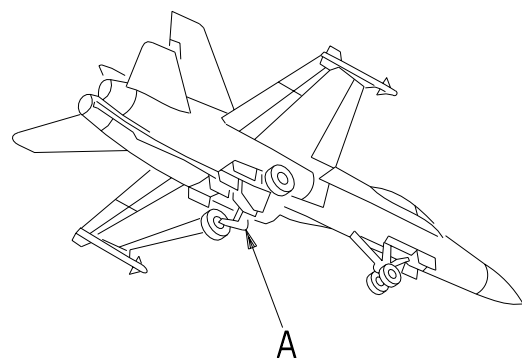


Figure 1. MLG Lever Axle Corrosion Inspection Areas (Sheet 1)

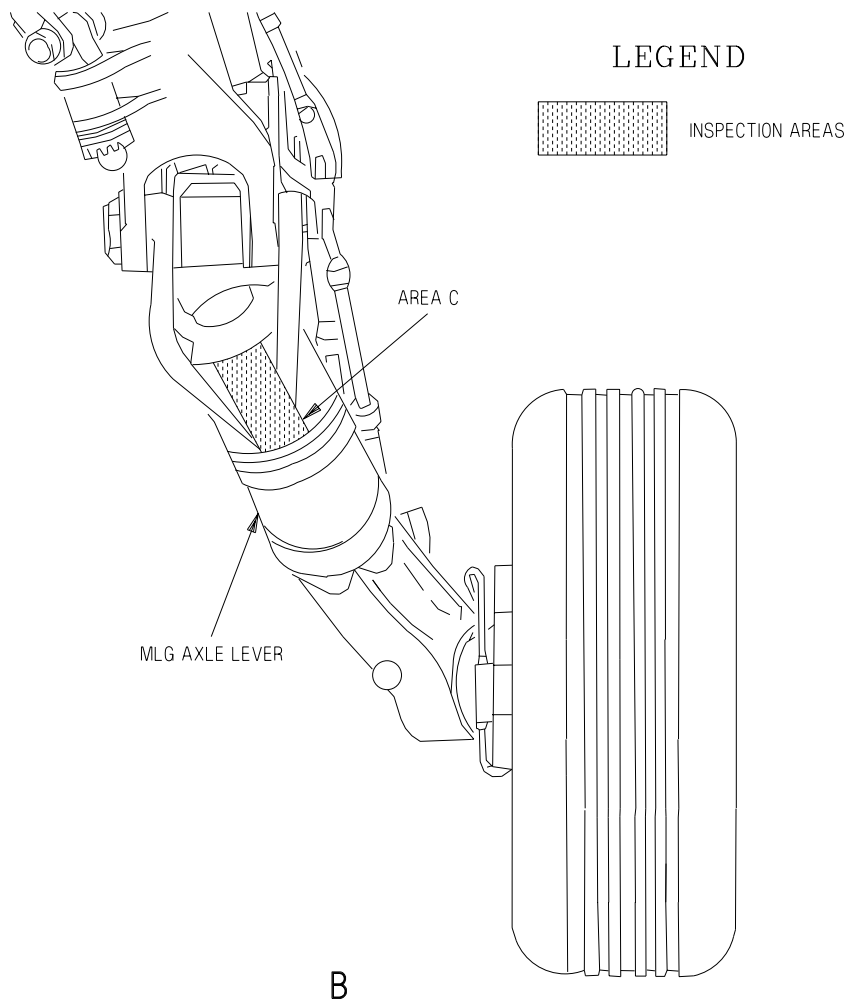
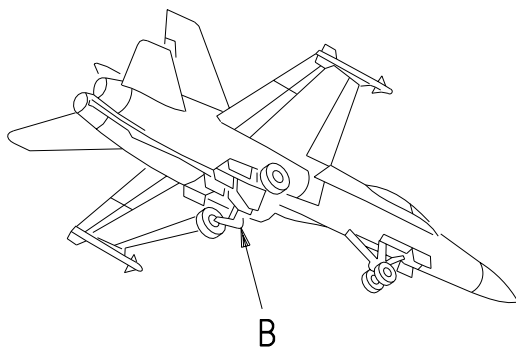


Figure 1. MLG Lever Axle Corrosion Inspection Areas (Sheet 2)

IDENTIFICATION

THE MLG AXLE LEVER MUST BE IDENTIFIED USING THE FORGING PART NUMBER.

THE TABLE BELOW CONVERTS THE FORGING PART NUMBER TO MLG AXLE LEVER PART NUMBER.

THE FORGING PART NUMBER IS LOCATED ON THE MLG AXLE LEVER ON THE OUTBOARD FLANGE OF THE LOWER AFT ATTACHMENT FOR THE MLG PLANING LINKS.

BELOW SHOWS THE APPROXIMATE LOCATION OF THE FORGING PART NUMBER.

MLG AXLE LEVER

| PART NUMBER | FORGING PART NUMBER |
|----------------|---------------------|
| 74A410506-1005 | 74A410506-2009 |
| 74A410506-1006 | 74A410506-2010 |
| 74A410506-1009 | 74A410506-2011 |
| 74A410506-1010 | 74A410506-2012 |
| 74A410506-1011 | 74A410506-2015 |
| 74A410506-1012 | 74A410506-2016 |

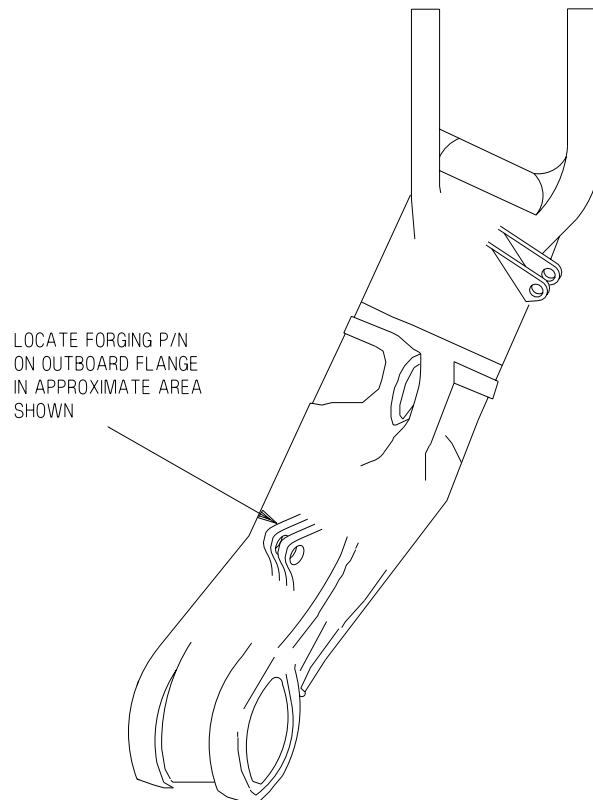


Figure 2. MLG Axle Lever Assembly Identification

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

CLEANING

This WP supersedes WP006 00, dated 1 February 1995.

Reference Material

| | |
|---|------------------|
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Plane Captain Manual | A1-F18AC-PCM-000 |
| Line Maintenance Procedures..... | A1-F18AC-LMM-000 |
| General Aircraft Information | A1-F18AC-GAI-000 |
| Daily/Special/Preservation Maintenance Requirements Cards | A1-F18AC-MRC-200 |
| Daily/Special/Preservation Maintenance Requirements Cards | A1-F18AE-MRC-200 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| General Information | WP003 00 |

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| Solvent Cleaning | 2 |

Record of Applicable Technical Directives

None

1. GENERAL INFORMATION.

- a. Aircraft washing should be done in a shaded area.
- b. Aircraft washing shall be done where supply of water and good drainage is available.
- c. Cleaning methods vary with location of aircraft, type, weather conditions, and operational status.
- d. Aircraft, assembly, or part cleaning is required for preventive maintenance and the first step in surface preparation for application of finish system.
- e. Water entrapment, caused by plugged drain holes is often cause of corrosion. Drain holes shall be inspected at each wash and by plane captain during daily inspection.

2. SAFETY PRECAUTIONS.

- a. Make sure aircraft is grounded (A1-F18AC-PCM-000), electric, static, grounding.
- b. Be familiar with danger areas (A1-F18AC-GAI-000), danger areas.
- c. Aircraft surfaces covered with detergent and water are extremely slippery. Personnel required on upper surfaces for cleaning shall be kept to minimum.

d. Rubber gloves, rubber apron, rubber boots, and faceshield are required when solvent cleaner is used on aircraft surfaces.

e. Eye protection is required when washing aircraft surfaces.

3. CLEANING PROCEDURES.

Support Equipment Required

None

Materials Required

None

NOTE

Canopy and windshield transparency are not part of wash cycle (A1-F18AC-PCM-000), canopy and windshield cleaning.

a. Double mask windshield/canopy, (WP003 00).

b. Ground aircraft (A1-F18AC-PCM-000), electrical, static, grounded.

c. Mask all exterior vents and openings (A1-F18AC-LMM-000), exterior drains, vents, and openings.

d. Install protective covers (A1-F18AC-PCM-000), ground protective covers.

e. Clean aircraft (NAVAIR 01-1A-509).

f. Post cleaning procedures are listed below:

(1) Remove all masking.

(2) Remove protective covers.

(3) Lubricate as required (A1-F18AC-MRC-200 or A1-F18AE-MRC-200).

4. SOLVENT CLEANING.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification or Part Number

Nomenclature

| | |
|------------------|--------------------------|
| 421 | Tape, Insulation |
| MIL-T-23397 TY2 | Tape, Pressure Sensitive |
| CCC-C-440 TYPE 1 | Cheesecloth |
| CLASS 1 | |
| DS-108F | Solvent, Wipe |
| 5772 048 | Cleaning Compound |
| MILA9962TY1CL1 | Mat, Abrasive |
| GRAX9X11 | |
| LP378TY1CL1GRB | Plastic Sheet |
| FNSH1-0- | |
| 004X50X96 | |

a. Ground aircraft (A1-F18AC-PCM-000), electrical, static, grounding.

b. Surfaces next to a repair shall be masked with tape and plastic sheet to prevent damage to nearby finish systems.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

c. Solvent cleaning is done by cleaning a surface with clean cheesecloth and solvent or cleaning compound. Abrasive mat may be used to aid removal of heavy contamination. Surface being cleaned shall be wiped with clean dry cheesecloth before solvent or cleaning compound evaporates. Repeat as needed if residue comes off on cheesecloth.

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

PRESERVATION OF TIN/ZINC ARC SPRAY COATING

This WP supersedes WP006 01, dated 1 August 1997.

Reference Material

None

Alphabetical Index

Subject

Page No.

Description 1

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Tin/zinc arc spray coating on structure under doors 6, 10, 13, and 14 needs short term preservation to protect it from corrosion. See figure 1 for location of coating.

Materials Required (Continued)

Specification
or Part Number

Nomenclature

MIL-C-81309 TY2CL2

Corrosion Preventive
Compound

CCC-C-440 TYPE 1
CLASS 1

Cheesecloth

Support Equipment Required

None

Materials Required

Specification
or Part Number

Nomenclature

020X413

Cleaning Compound

WARNING

Cleaning compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

a. Using cheesecloth moistened with cleaning compound, clean tin/zinc arc spray coating of all traces of corrosion preventive compound, salt deposits, and grime.

b. Wipe dry with clean, dry cheesecloth.

WARNING

Corrosion preventive compound is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

c. Apply a thin coat of corrosion preventive compound to tin/zinc arc spray coating.

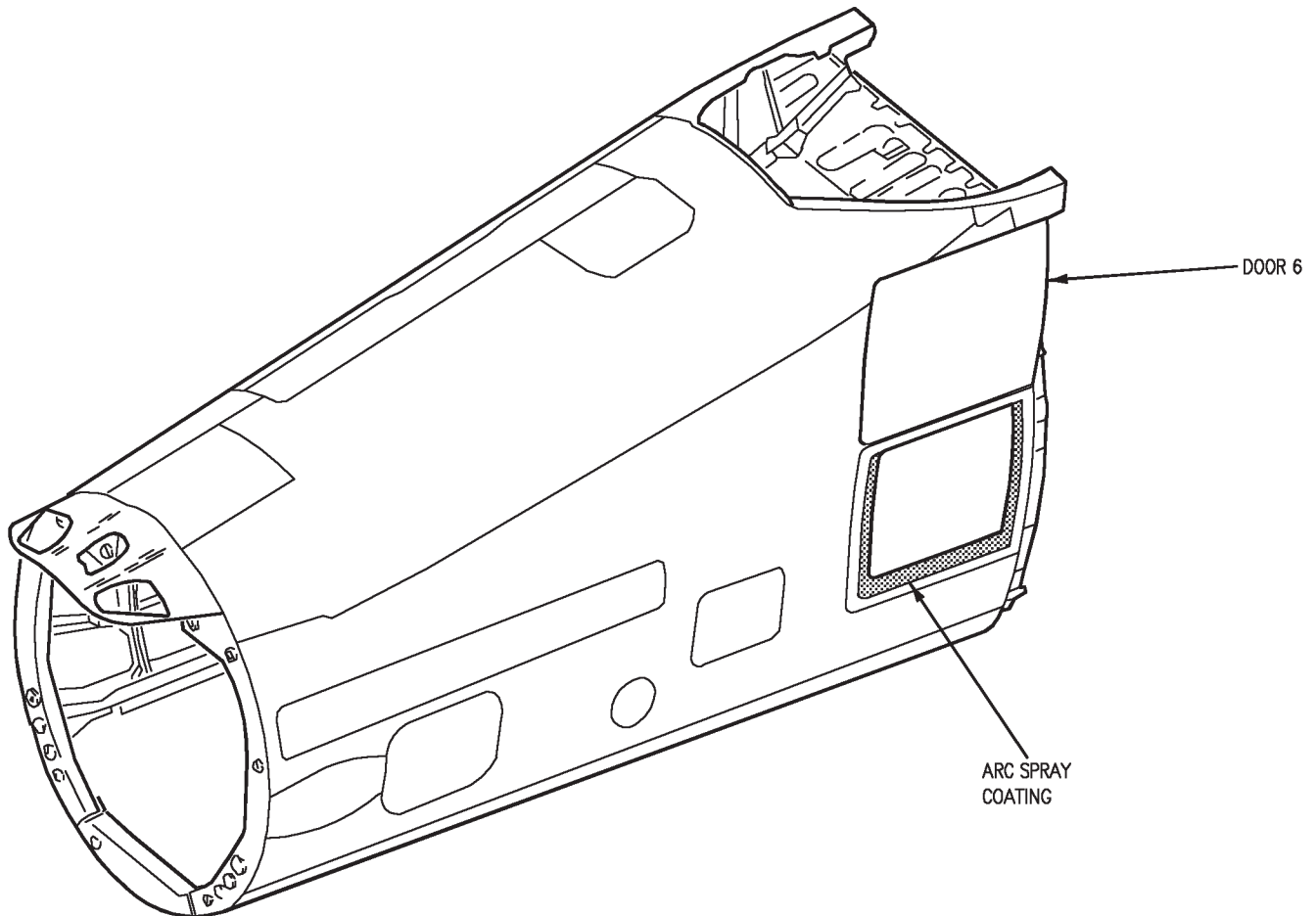


Figure 1. Location of Arc Spray Coating (Sheet 1)

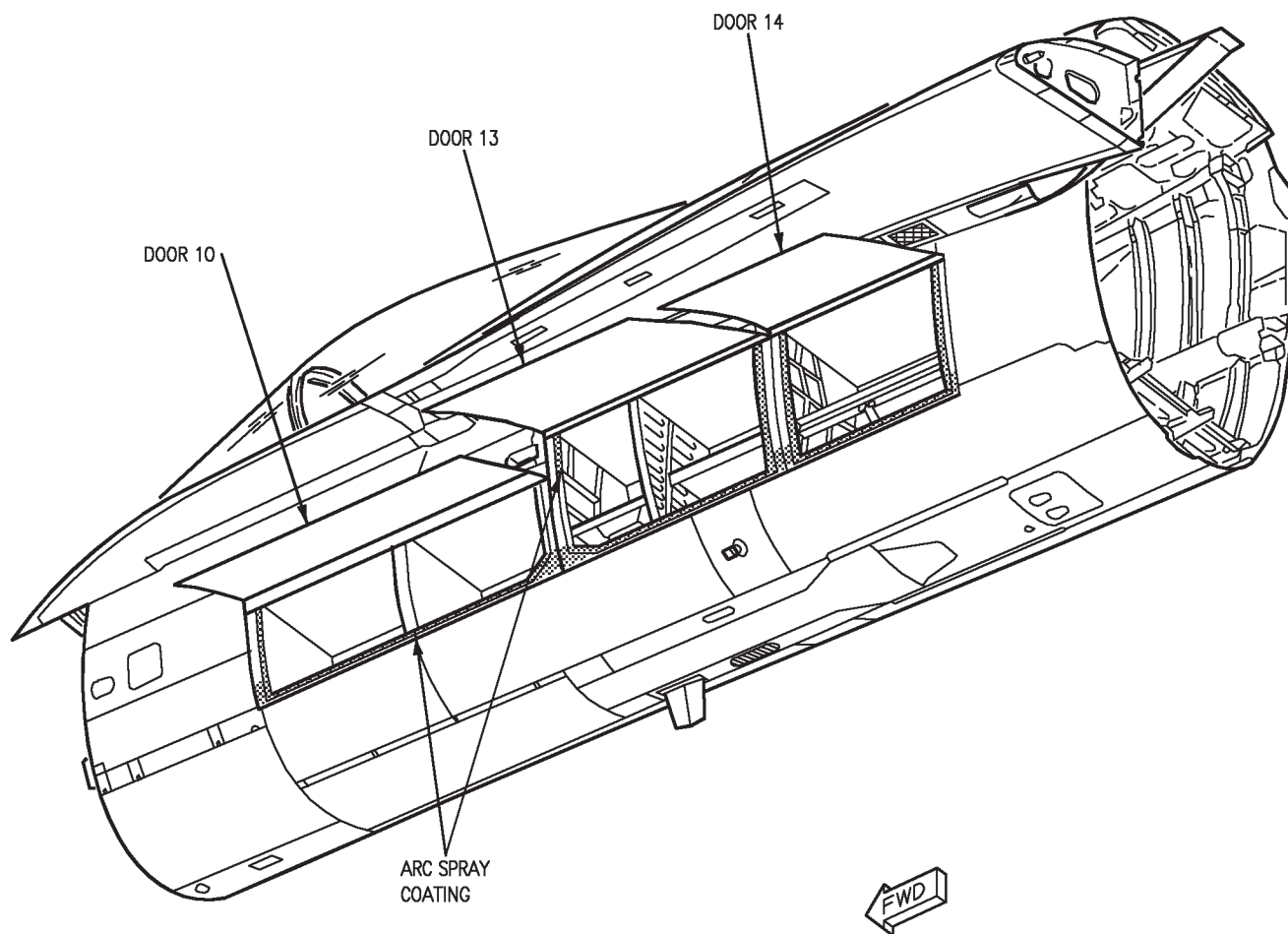


Figure 1. Location of Arc Spray Coating (Sheet 2)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

STRIPPING

Reference Material

| | |
|--|------------------|
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Plane Captain Manual | A1-F18AC-PCM-000 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| General Information | WP003 00 |
| Cleaning..... | WP006 00 |

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| Mechanical Removal of Finish..... | 4 |
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Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Metallic and nonmetallic surfaces require specific procedures in removal of finish system. Care must be taken in identifying skin, doors, covers and structure to determine if part is metallic or nonmetallic. Finish system on metallic surfaces is removed with MIL-R-81294 chemical paint remover or mechanical method. Finish system on nonmetallic surfaces is removed with mechanical method.

3. GENERAL INFORMATION.

a. Paint removal shall be done by mildest method possible.

b. Mask fuel or watertight sealant seams, joints, laps and gaps to prevent paint remover from softening or destroying integrity of sealant.

c. Protect synthetic rubber parts, aircraft tires, fabric, and acrylic transparencies against possible contact with paint remover.

d. Paint remover shall not contact or enter any bearing, fluid or dry film lubricated part, or assembly.

e. Seal all internal openings with lead foil tape to prevent intrusion of paint remover and water.

f. Paint stripping shall be done in a well ventilated area. If stripping is done outside, a shaded area shall be provided.

g. Personnel shall be restricted from interior of aircraft during stripping procedures, because of toxicity of chemical used.

h. While doing stripping steps, care shall be taken to avoid damage to surfaces.

i. All soils, marks, and grease shall be removed before doing stripping procedures.



j. Titanium parts stripped chemically shall be alkaline cleaned after stripper removal.

k. Specified stripping methods of finish removal shall be used before mechanical methods are used.

l. Paper or synthetic nonwoven wipers shall not be used for final cleaning of unpainted, bare, or anodized surfaces, or for cleaning exterior surfaces of aircraft.

m. Table 1 specifies strippers for finish removal.

Table 1. Specified Solvents and Strippers

| Base Material | Type Coating To Remove  | Approved Coating Remover |
|---|--|--------------------------|
| Aluminum Alloys | Cured Catalyzed Coating | MIL-R-81294 |
| Copper Alloys | Cured Catalyzed Coating | MIL-R-81294 |
| Steels: Low Alloy, High Strength, Plain Carbon Low Strength, and Corrosion Resistant Steels | Cured Catalyzed Coating | MIL-R-81294 |
| Titanium | Cured Catalyzed Coating | MIL-R-81294 |
| NOTE  Catalyzed coatings are two or three component systems which rely on a hardening agent to promote curing. | | |

4. SAFETY PRECAUTIONS.

a. Steps for opening chemical paint remover container (NAVAIR 01-1A-509).

b. Avoid breathing solvent or stripper vapors by use of good ventilation or wear a respirator.

c. Paint remover will cause chemical burns, avoid skin and eye contact.

d. Protective clothing shall be worn during chemical stripping.

e. Do not smoke while working with solvents or in solvent storage area.

f. No food or drink allowed in solvent or stripper work area.

5. METALLIC SURFACES.

Support Equipment Required

| Part Number or Type Designation | Nomenclature |
|------------------------------------|-----------------------|
| GGG-M-125/6 | Respirator |
| MIL-G-12223, TYPE 2 | Gloves, Toxicological |
| ZZ-B-530 | Rubber Boots |
| ZZ-A-605 | Rubber Apron |
| L-F-336 | Faceshield |

Materials Required

| Specification or Part Number | Nomenclature |
|---|----------------------|
| A-A-1044 | Wool, Metallic |
| MILA9962TY1CL1 GRAX9X11 | Mat, Abrasive |
| LP378TY1CL1 GRBFNSH1 -0-004X50X96 | Plastic Sheet |
| 421 | Tape, Insulation |
| AA1048TY1CL1 GRIT320X9X11 | Cloth, Abrasive |
| MIL-R-81294 TY1 | Remover, Paint |
| H-B-643, TYPE 2, CLASS1, SIZE 1 | Brush, Acid Swab |
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| 61-7715-5507-7L | Brush, Fiber, Rotary |
| 61-7715-5408-8 | Brush, Fiber, Rotary |
| MIL-B-15319TYPE1 CLASS1SIZE1 | Brush, Painter's |
| — | Fiber Scraper |

6. Chemical Stripping Method.

- a. Ground aircraft (A1-F18AC-PCM-000).
- b. Double mask surrounding areas not receiving paint remover using plastic sheet with insulation tape (WP003 00).
- c. Solvent clean surfaces being stripped of finish (WP006 00).

WARNING

Paint remover is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

- d. Mix paint remover thoroughly before use to uniformly disperse active components in solution.
- e. Apply paint remover with brush or acid swab brush.

- f. Apply heavy coats of paint remover starting with upper surface working down to lower surface. Cover surface completely with paint remover.

NOTE

Finish will soften in 15 to 50 minutes for polyurethane enamel and 2 hours for epoxy primer.

- g. Allow paint remover to remain in contact with surface until paint is loosened over complete surface.

- h. If paint remover has dried, apply second coat and cover with plastic film to prevent evaporation.

CAUTION

Metallic wool or abrasive mat are not to be used on alclad material. Damage to metal protective coating will result.

- i. Remove loosened coating with rags, fiber scraper, brush, abrasive mat or metallic wool. Use care not to damage metal surface.

- j. Repeat steps e through i until all traces of finish are removed.

NOTE

All titanium parts stripped with MIL-R-81294 shall be alkaline cleaned.

k. Solvent clean bare metal surface thoroughly (WP006 00).

7. Finish Removal At Seams And Joints.

a. Remove masking from seams, joints, laps, gaps, repairs, inspection button holes, and any area still requiring finish removal.

b. Remove finish from areas in step a using abrasive mat or clean cheesecloth moistened with solvent. Avoid excess solvent entering seams, joints or areas of sealant or adhesive use.

c. Wipe surface dry with clean cheesecloth.

8. Mechanical Removal Of Finish.

a. Mask or suitably protect bearing surfaces, close tolerance areas, and finish plated areas during mechanical stripping.



Use care during finish removal to prevent excessive removal of base material and to prevent localized overheating of part.

b. Hand sanding of localized areas for finish removal shall be done using 320 grit abrasive cloth.

c. Rotary fiber brushes (NAVAIR 01-1A-509).

9. NONMETALLIC SURFACES.**Support Equipment Required**

None

Materials Required

| Specification or Part Number | Nomenclature |
|---------------------------------|--------------|
|---------------------------------|--------------|

Materials Required (Continued)

| Specification or Part Number | Nomenclature |
|---------------------------------|----------------|
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| A-A-1047GRIT 180- 9X11 | Abrasive Paper |

a. Clean aircraft assembly, subassembly or component (WP006 00)

b. Wipe dry with clean dry cheesecloth.

WARNING

Sanding of graphite epoxy or fiberglass material produces a fine dust that may cause skin irritation. Breathing an excessive amount of dust may be injurious.

CAUTION

Use care when removing surface finish not to damage base material of skin. Do not use power tools on nonmetallic surfaces.

c. Remove finish using 180 grit abrasive paper.

d. If base material was damaged during removal of finish system, refer to applicable structure repair manual, A1-F18AC-SRM-210 through -240 or A1-F18AE-SRM-600 through A1-F18AE-SRM-760, for damage evaluation of part.

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

CHEMICAL TREATMENT

Reference Material

| | |
|--|------------------|
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| General Information | WP003 00 |
| Cleaning..... | WP006 00 |

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Chemical treatment of aircraft metals is an important part of corrosion control. Chemical treatment imparts corrosion resistance to base metal and improves bonding of finish system.

3. GENERAL INFORMATION.

a. Primed, painted, anodized, or hard coated areas next to an area being treated need not be masked. Care should be exercised to keep chemical off these areas by rinsing with cool clean water.

b. Chemical conversion surface treatment is acidic and may become corrosive if allowed to enter crevices or joints and not fully removed.

4. SAFETY PRECAUTIONS.

a. Protective clothing shall be worn when working with hazardous chemicals or solutions.

b. Seal all containers immediately after use to prevent accidental spilling and escape of vapors.

c. Avoid inhaling vapors. If enough vapor is inhaled to cause discomfort, get medical assistance.

d. Keep stored materials cool, but well above freezing point.

e. Storage area shall be ventilated and apart from solvents.

f. Store chemicals in marked container or in container which it was received.

g. Empty containers shall be rinsed and capped before disposing.

h. Rags containing chemicals shall be rinsed with fresh water before disposing. Do not dispose rags containing chemicals with rags moistened with

solvent, fire may result.

Support Equipment Required

None

Materials Required

| Specification or Part Number | Nomenclature |
|---|---------------------------------|
| MIL-C-5541, CLASS 1A | Corrosion Resistant Material |
| MIL-C-81706, CLASS 1A, FORM 3 | Chemical Conversion Material |
| MILA9962TY1CL1 GRBX9X11 | Abrasive Mat |
| CCC-C-440, TYPE 1, CLASS I | Cloth, Cheesecloth |
| H-B-643, TYPE 2, CLASS I, SIZE 1 | Acid Swabbing Brush |
| MIL-G-12223, TYPE 2 SMALL MEDIUM LARGE | Rubber Gloves |
| — | Rubber Apron |
| — | Rubber Boots |
| — | Sponge Stick Moistener |

5. CHEMICAL CONVERSION SURFACE TREATMENT, MIL-C-81706 (NAVAIR 01-1A-509).

a. Mask areas not receiving chemical treatment.
Do masking procedures (WP003 00).

b. Clean surface receiving chemical treatment.
Do solvent cleaning procedures (WP006 00).

c. Using water and abrasive mat, vigorously scrub surface to remove oxides.

NOTE

Do not allow surface to dry.

d. Thoroughly pressure rinse surface with cold water.

e. Wipe surface using clean wet cheesecloth to remove loose oxides and residue from abrasive mat. Vigorously wipe surface using clean wet cheesecloth until no residue is visible on cheesecloth.



A water-break free surface must exist before application of chemical conversion material. Chemical will not react to contaminated surface.

f. Check for water breaks. Repeat steps c through e if water-breaks exist.

WARNING

Chemical resistant material is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

Do step g if unable to get water-break free surface.

g. If an area continues to show water-breaks, use MIL-C-5541 and abrasive mat to scrub surface, then repeat steps d through f.

WARNING

Chemical conversion material is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

CAUTION

Do not allow surface to dry before applying chemical treatment. Oxides will reform on dry surfaces.

NOTE

On curved or inclined surfaces, begin application at lower surface and work up to minimize streaking.

h. Apply chemical conversion material to wet surface using cheesecloth, acid swab brush, or sponge stick using light pressure and continuous motion.

i. Keep surface wet with chemical conversion material for the following dwell times:

CAUTION

Allowing too long of dwell time before rinsing can result in a powdery coated surface. Chemical conversion material shall be rinsed immediately when surface indicates a yellow to iridescent gold appearance. A brown color indicates too long dwell time and produces powdery coating. This will not provide a good surface for finish system bonding.

NOTE

Streaks from method of application or from rundown of excessive chemical conversion material shall not be cause for rejection.

(1) Aluminum - 1 to 5 minutes.

(2) Anodized Aluminum or Corrosion Resistant Steel (CRES) - 5 to 8 minutes.

(3) Titanium - 30 to 45 minutes.

(4) Tin/Zinc Coating - 15 to 20 minutes.

CAUTION

The newly formed conversion coating is soft and easily removed if rubbed. Do not swab surface with cheesecloth during rinsing. Care shall be taken so rinse water pressure is low. Do not disturb coated surface until it is completely dry.

j. Remove chemical conversion material by rinsing thoroughly with cold water. Continue rinsing until run off water is colorless.

k. Retreat any surface that does not have a yellow to iridescent gold appearance.

l. Do not disturb conversion coated surface for at least 1 hour.

6. ION VAPOR DEPOSITION (IVD) COATED

SURFACES. After removal of IVD from fatigue life critical aluminum alloy parts, apply chemical conversion material to aluminum. Do chemical conversion surface treatment, this WP.

7. TIN/ZINC COATING APPLIED TO ALUMINUM

SURFACES. All arc sprayed tin/zinc coating applied to aluminum surfaces which do not receive primer and top coat must be chemical conversion coated. Do chemical conversion surface treatment, this WP.

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FIRE AND THERMAL BARRIER COATING

Reference Material

| | |
|--|------------------|
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| General Information | WP003 00 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning..... | WP006 00 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Fire and thermal barrier coating, MMS-455, is a two-component korootherm kit with a usable thermal and fire range of 0 to 2,000°F. It is used to reduce or prevent the spread of internal aircraft fires. Fire and thermal barrier coating is applied over primer.

3. SAFETY PRECAUTIONS.

a. In areas of heavy vapor concentration from solvents, wear respirator, gloves, and goggles or face shield.

b. Store and handle solvents in approved containers.

c. Keep containers correctly labeled and closed when not in use.

d. Store solvents in cool, well ventilated areas, free from fire hazards.

e. Use solvents in well ventilated area.

f. Avoid inhaling vapors, but if enough vapor is inhaled to cause discomfort, get first aid immediately.

g. For eye or skin contamination, flush with large amounts of water for 15 minutes, remove contaminated clothing, and get first aid.

h. Smoking, sparks, open flame, or bare filament heaters are prohibited in solvent areas.

i. Food or drink is prohibited in solvent areas.

j. Limit quantity of solvent in solvent work area.

k. Dispose of all rags in safety disposal containers.

1. For additional safety precautions (WP003 00, WP011 00, and WP012 00), safety precautions and (NAVAIR 01-1A-509), paint finishes and touchup procedure.

4. **PROCEDURES.** The coating is a two-component batch solution. The catalyst of one batch and base of another shall not be intermixed.

Support Equipment Required

None

Materials Required

| Specification or Part Number | Nomenclature |
|---------------------------------|--------------|
|---------------------------------|--------------|

| | |
|---|---|
| D 1153 CCC-C-440, Type 1, Class 1 MMS455 | Methyl Isobutyl Ketone Cloth, Cheesecloth Korotherm Kit |
|---|---|

5. **Storage.**

a. The base material and catalyst shall be stored in an enclosed building at ambient temperature.

b. Shelf life is 12 months.

6. **Surface Preparation.** All surfaces to be coated shall be dry and free from dust, dirt, grease, corrosion, loose paint, fingerprints, and contamination (WP005 00 and WP006 00). Areas/surfaces not to be coated shall be masked (WP003 00).

7. **Priming.** (WP011 00).

8. **Mixing**

WARNING

MMS-445 is highly flammable and toxic.
Do not use near open flame or sparks.
Use only in well ventilated areas.

a. Add four parts base to one part catalyst and mix thoroughly.

NOTE

Mixed material has a working life of 2 to 5 minutes.

9. **Application.** Troweling is the preferred method of application. The coating should be applied in temperatures of 50 to 100°F and not more than 80 percent relative humidity.

10. **Touchup.** Damaged areas up to 2 square inches may be touched up.

a. Cut out all damaged areas to at least 0.250 inch diameter.

WARNING

Methyl isobutyl ketone, is flammable and toxic. Do not use near open flame or sparks. Avoid breathing vapors. Do not allow contact with skin or eyes. Use only in well ventilated areas.

b. Remove any dirt or dust with clean cheesecloth moistened with methyl isobutyl ketone and allow to dry.

c. Immediately trowel onto the prepared surface to a level matching the surrounding area.

11. **Curing.** The coating air dries to touch in 5 to 7 minutes, tack free in 30 minutes, and hand dry in 1 hour.

DEPOT MAINTENANCE

AIRCRAFT CORROSION CONTROL

ARC SPRAYING

This WP supersedes WP009 01, dated 1 February 1995.

Reference Material

| | |
|--|------------------|
| Plane Captain Manual | A1-F18AC-PCM-000 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Chemical Treatment..... | WP008 00 |
| Form In Place Sealing..... | WP010 00 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Corrosion Inspection and Removal | WP005 00 |
| Aircraft Fuel Cells and Internal/External Tanks..... | NAVAIR 01-1A-35 |
| Fuel System | A1-F18AC-460-300 |
| Ground Support Equipment | WP009 01 |
| Fuel System | A1-F18AE-460-300 |
| Ground Support Equipment | WP010 00 |

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Arc sprayed tin-zinc coating on aluminum or composite material provides an electrical bonding path for EMI (electro-magnetic interference) shielding. Tin-zinc sprayed on aluminum will also protect the aluminum from corrosion.

3. SAFETY PRECAUTIONS.

a. Make sure aircraft is defueled and systems purged when arc spraying on the aircraft.

(1) Defuel aircraft (A1-F18AC-PCM-000).

(2) Drain residual fuel
(A1-F18AC-PCM-000).

(3) Do purging and inerting methods
(NAVAIR 01-1A-35).

(4) Purge and inert fuel cells until safe indication is displayed on combustible and toxic gas indicator (A1-F18AC-460-300, WP009 01 or A1-F18AE-460-300, WP010 00).

- b. No smoking allowed in repair area.
- c. Dispose of all used rags or other material in safety disposal containers.
- d. The arc spray gun shall never be pointed towards personnel or combustible material.
- e. The arc from the arc spray gun shall not be viewed with the unshielded eye.
- f. Ventilation shall be provided to quickly remove all dust and fumes from the area.
- g. Respirator shall be worn during vacu-blast and arc spray operation.
- h. Eye protection is required when vacu-blast and arc spray equipment is used.
- i. No food or drink shall be allowed in work area.

Support Equipment Required

| Part Number or Type Designation | Nomenclature |
|---------------------------------|-----------------------------------|
| — | Electric Arc Spray System |
| — | Honing Machine, Dry, Portable |
| — | Micrometer, 0.001 Inch Increments |
| — | Hot Air Gun, 150° Maximum |

Materials Required

| Specification or Part Number | Nomenclature |
|------------------------------|-------------------------|
| MILA9962TY1CL1 GRBX9X11 | Mat, Abrasive |
| A-A-203 | Paper, Kraft, Untreated |

Materials Required (Continued)

| Specification or Part Number | Nomenclature |
|--|----------------------------|
| A-A-883, TYPE1 1IN, 855-1.000IN. | Tape, Pressure Sensitive |
| 250-1IN | Tape, Pressure Sensitive |
| MIL-A-21380, TYPE1 GRIT 120 | Grain, Abrasive |
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| TT-I-735, GRADE B EA956 | Isopropyl Alcohol Adhesive |
| QQ-T-371 GRADE A | Tin Pig (Tin/Zinc, 20-80) |
| A-A-1047 Grit 150-9X11 180-9X11 400-9X11 | Paper, Abrasive |

4. SURFACE PREPARATION - COMPOSITE.

NOTE

Abrasive mats are preferred for removal of corrosion or conductive adhesive because composite fibers can be easily damaged. If fibers are damaged, repair per applicable structure repair manual, A1-F18AC-SRM-210 through -240 or A1-F18AE-SRM-600 through -750.

- a. Remove any conductive adhesive using abrasive mats or 180 grit or finer abrasive paper.

WARNING

Isopropyl alcohol is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- b. Clean surface to be arc sprayed with cheesecloth moistened with isopropyl alcohol until all traces of contaminants are removed.

- c. While surface is still wet, wipe dry with clean cheesecloth.

d. Using untreated kraft paper and A-A-883 tape, mask areas adjacent to surface to be arc sprayed. Avoid contaminating the cleaned surface.

e. Apply 885-1.000 tape or coupons of known thickness adjacent to area to be arc sprayed for later thickness measurement.

f. Lightly sand using 150 grit abrasive paper to roughen surface to a buff finish.

g. Clean surface with clean, dry cheesecloth.

WARNING

Adhesive is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

h. Apply a very thin coat of adhesive to surface. Excess can be wiped off with one pass of clean abrasive mat.

NOTE

Dust coat is just enough to cover the adhesive.

i. While adhesive is still tacky, spray a thin dust coat of tin-zinc on the adhesive.

j. Cure surface 60 to 70 minutes at 180° to 200° or 16 hours at room temperature.

k. After curing, apply arc spray per paragraph 6, this WP.

5. SURFACE PREPARATION - ALUMINUM.

a. Remove any corrosion or conductive adhesive (WP005 00).

WARNING

Isopropyl alcohol is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

b. Clean surface to be arc sprayed with cheesecloth moistened with isopropyl alcohol until all traces of contaminants are removed.

c. While surface is still wet, wipe dry with clean cheesecloth.

d. Using kraft paper and A-A-883 tape, mask areas adjacent to surface to be arc sprayed. Avoid contaminating the cleaned surface.

e. Apply 885-1.000 tape or coupons of known thickness adjacent to area to be arc sprayed for later thickness measurement.

CAUTION

Use of unclean abrasive grain will degrade the bonding of arc spray coating and induce corrosion.

f. Lightly vacu-blast surface with clean abrasive grain.

g. Vacuum any particles remaining on surface.

NOTE

Aluminum surfaces must be arc sprayed within 4 hours after surface preparation.

h. Apply arc spray per paragraph 6, this WP.

6. ARC SPRAY APPLICATION.

WARNING

Arc spray is an electrically initiated coating and sparks are generated inside gun and is a fire risk. Make sure safety precautions are complied with.

CAUTION

Avoid contaminating prepared surfaces with arc spray cables. Coating will not bond to contaminated surfaces.

- a. Hold arc spray gun 6 to 12 inches from surface.

NOTE

Spray coating so a progressive buildup occurs over complete surface.

- b. Move arc spray gun across area at approximately 15 inches per second.
- c. Overlap each coat by one-third of the spray width.
- d. Peel coating from 885-1.000 tape for thickness measurement or, if coupons were used, measure thickness difference.
- e. Measure coating thickness.
- f. Determine if coating thickness is satisfactory.
 - (1) Aluminum - 0.006 to 0.010 inch thick.
 - (2) Composite - 0.002 to 0.006 inch thick.
- g. If coating is too thin, apply one more coat within 30 minutes of first application.
- h. If coating is too thick, do the following substeps.

NOTE

On aluminum, if coating is thicker than specified, possibility of unbonds is increased.

- (1) Visually inspect coating for unbonded areas.
- (2) If no unbond area exists, go to step i.
- (3) If unbonded area exists, remove unbonded coating and repeat surface preparation and arc spray application.
 - i. Remove any unusual roughness by lightly sanding using 400 grit abrasive paper.
 - j. Vacuum clean area.
 - k. If cracks or blisters developed in coating, repair per following substeps.

CAUTION

When repairing coating on composite, be careful not to damage composite fibers.

- (1) Using 180 grit or finer abrasive paper, lightly sand defect area to remove coating.
- (2) Bevel edges of coating around defect area.
- (3) Clean area with dry, clean cheesecloth.
- (4) If repairing coating on composite, apply a very thin coat of adhesive and a dust coat of tin-zinc on the adhesive while its still tacky.
- (5) Use hot air gun to cure repaired coating for 20 minutes minimum.
- (6) Respray the defect area.

NOTE

Thickness coating measurement not required after repair.

- l. Inspect bonding of arc-sprayed coating at various locations.

NOTE

Recommended length of tape is approximately 8 inches.

- (1) Apply strip of 250 tape to coating.
- (2) Press tape firmly to make good bond.
- (3) Lift one end of tape approximately 2 inches and abruptly pull at 45° to remove the strip of tape.
- (4) Inspect surface for any coating removal.

NOTE

Use new strip of tape for each pull.

- (5) If coating is removed, do three more tape pulls across edges of failed area.

(a) If less than one square inch of coating is removed, repair the area per step k.

(b) If more than one square inch of coating is removed, repeat surface preparation and arc spray application.

m. Apply chemical conversion surface treatment to arc sprayed, tin-zinc surface (WP008 00).

n. Remove tape and kraft paper.

o. Touch up finish system as required (WP011 00 or WP012 00).

NOTE

Slightly overlap edge of arc spray with finish system.

p. Apply sealant as required (WP010 00).

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FORM IN PLACE SEALING

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Finish System..... | WP012 00 |
| Corrosion Inspection and Removal..... | WP005 00 |
| Form In Place Sealing With EMI Gasket..... | WP005 02 |
| Chemical Treatment..... | WP008 00 |
| Priming Procedures..... | WP011 00 |
| Structure Repair, General Information..... | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |
| In-Service Tolerances..... | WP008 00 |

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Form in place seals are used with removable covers, doors, and hinged doors to provide a barrier between structure and the elements. Each door requires its own formed seal and if door is replaced, the existing form in place seal must be removed and a new seal formed to fit the new door. Repair or replace form in place seal with integral EMI gasket for doors 18, 26, 31, 40, 43, or 49 (WP005 02).

Support Equipment Required

NOTE

Alternate item type designations or part numbers are listed in parentheses.

| Part Number or Type Designation | Nomenclature |
|---------------------------------|-----------------------|
| Semco No. 250 | Pneumatic Sealant Gun |
| Semco No. 8646 (No. 8615) | Sealant Gun Nozzle |
| Semco No. 440 (No. 420) | Sealant Gun Nozzle |

Support Equipment Required (Continued)

| Part Number or Type Designation | Nomenclature |
|------------------------------------|--|
| — | Sealant Scraper, Phenolic (Micarta or Formica) |
| — | Round Nylon Bristle Brush, 1/4 to 1/2-Inch Diameter |
| — | 250 Watt Infrared Heat Source |
| MIL-V-21987 | Vacuum Cleaner |
| TD-255E1 | Milson Stud Clean-Up Tool |
| 192901-6C-4 | Slave Screw, Milson |

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification or Part Number

Nomenclature

| | |
|---------------------|-----------------------------|
| A-A-42A | Talcum Powder |
| 220325 | Cartridge Assembly |
| VV-P-236 | Petrolatum, Tech |
| 9M882 | Form In Place Seal |
| -101-0.19 I.D. | Spacer Ring |
| 0.38 O.D. | |
| -102-0.25 I.D. | |
| 0.50 O.D. | |
| -103-0.38 I.D. | |
| 0.75 O.D. | |
| A-A-203 | Paper, Kraft, Untreated |
| CCC-C-440 TYPE 1 | Cheesecloth |
| CLASS 1 | |
| MIL-S-83430 CLA-1/2 | Sealing Compound |
| MIL-S-83430 CLB-1/2 | Sealing Compound |
| PR-182 | Sealing Compound |
| DS-108F | Solvent, Wipe |
| 5772 048 | Cleaning Compound |
| MILA9962TY1CL1 | Mat, Abrasive |
| GRAX9X11 | |
| 250-1IN | Tape, Pressure Sensitive |

3. REPLACEMENT OF FORM IN PLACE SEAL.

See figure 1.

4. Surface Preparation.



Avoid using metal knife or abrasive cutting tool to remove sealant. Damage to underlying finish system and/or structure may occur.

- a. Remove existing form in place seal using sealant scraper.
- b. Remove any residual sealant using abrasive mat.
- c. Do corrosion inspection and removal procedures as required to area (WP005 00).

NOTE

If finish system appears intact and requires no rework, do primer adhesion test, paragraph 5.

- d. Apply chemical treatment to any bare exposed metal surface on structure and/or door (WP008 00).

- e. Apply primer to chemically treated areas (WP011 00).

- f. Cure primer as follows:

(1) Preferred cure- Allow primer to air dry for 24 hours at room temperature.

(2) Alternate cure- Allow primer to air dry for 20 minutes at room temperature followed by 30 minutes at 200±25° F using 250 watt infrared heat source.

5. Primer Adhesion Test.

NOTE

Avoid placing pressure sensitive tape over edges or fastener holes.

- a. Apply 1 inch wide pressure sensitive tape over primed surfaces receiving form in place seal.
- b. Press tape down firmly and lift one end off abruptly at a 45° angle.
- c. If primer fails, repeat adhesion test until no more failures occur.
- d. Using abrasive mat, remove all loose primer.
- e. Repeat surface preparation procedures as required, paragraph 4.
- f. Repeat primer adhesion test, paragraph 5.
- g. When good adhesion between primer and structure exists, go to cleaning procedures, paragraph 6.

6. Cleaning.

- a. Vacuum clean all dust and loose debris from area.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

- b. Wipe all surfaces where sealant will be applied using clean cheesecloth moistened with solvent or cleaning compound. Repeat until no residue appears on cheesecloth.
- c. Final wipe solvent or cleaning compound from surfaces before evaporation using clean dry cheesecloth. Allow to air dry for 15 minutes.
- d. Apply adhesion promoter per paragraph 7 as soon as possible after cleaning.

7. Application of Adhesion Promoter (Cleaning Compound).

WARNING

Primer causes eye, skin burns. May cause allergic skin reaction. May cause eye, skin and respiratory irritation. Do not get in eyes, on skin, or on clothing. Avoid breathing dust (vapor, mist, gas). Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

CAUTION

Do not allow primer to puddle. Excess primer will decrease sealant adhesion.

NOTE

Dispense primer from plastic squeeze bottle spout to cheesecloth or brush.

- a. Apply a thin, uniform, single coat of primer to structure using clean cheesecloth or brush.
- b. Allow primer to air dry for 5 minutes, before wiping dry with a clean dry cheesecloth.

CAUTION

Do not touch or contaminate surface where primer has been applied. Sealant will not adhere to contaminated surface.

- c. Apply primer as soon as possible after cleaning compound has dried.

8. Masking.

- a. Apply pressure sensitive tape flush with mold line edges of door and adjacent mold line surfaces where sealant squeeze out is possible, see figure 1.
- b. Apply pressure sensitive tape and untreated kraft paper to underside of structure sills to prevent sealant squeeze out from entering compartments.

9. Door Preparation.

NOTE

Latched doors do not require spacer rings.

a. On doors 41, 44, 78, 79, 82, 83, 84, 100, 124, and 143:

(1) Position spacer ring centers on inner door surface at equally spaced distances between fastener holes.

(2) Do not position spacer ring over any fastener hole location.

b. On all other doors with removable fasteners:

(1) Position applicable size spacer ring over each fastener hole on structure surface.

(2) Make sure spacer rings are large enough to completely cover hole diameters in door.

c. On doors with milson panel fasteners:

NOTE

The milson fastener retaining ring should not be installed until seal is formed and clean up is complete.

(1) Fabricate 0.75 inch diameter masking paper die cut disks.

(2) Position two disks over each hole in door, one over the other.

CAUTION

Do not allow petrolatum to contact any surface sealant is to adhere. Sealant will not adhere to petrolatum coated surfaces. Repeat cleaning procedures, paragraph 6 and application of adhesion promoter procedures, paragraph 7 if seal contact surface becomes contaminated with petrolatum.

d. Spread a thin film of petrolatum over surface of door and spacer rings contacting sealant.

10. Sealant Preparation and Application.

WARNING

MIL-S-83430 sealing compound is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

a. Prepare MIL-S-83430 CLA-1/2 sealing compound. Do sealant preparation procedures (A1-F18AC-SRM-200, WP011 00).

NOTE

Sealing compound may be applied to the door if structure sill is located vertically or overhead.

b. Apply sealing compound around structure sills using pneumatic sealant gun with number 8646 nozzle.

c. Apply enough sealing compound to get squeeze out between door and structure.

d. Avoid air entrapment during sealing compound application.

11. Door Installation.

NOTE

Install door within application time of sealing compound, see table 1.

a. On doors 41, 44, 78, 79, 82, 83, 84, 100, 124, and 143:

(1) Lightly lay door over sealing compound.

(2) Install a fastener coated with petrolatum into each fastener hole of door.

(3) Tighten enough fasteners to maintain mold line flushness requirements (A1-F18AC-SRM-200, WP008 00).

(4) Allow door to remain installed until sealant becomes tough and rubbery. See table 1 for cure times.

- b. On all other doors with removable fasteners:

(1) Lightly lay door over sealing compound.

(2) Install enough fasteners to maintain mold line flushness requirements (A1-F18AC-SRM-200, WP008 00).

(3) Allow door to remain installed until sealant becomes tough and rubbery. See table 1 for cure times.

- c. On doors containing milson panel fasteners:

(1) Close door using firm hand pressure to cause squeeze out which will minimize sealant intrusion into receptacles.

NOTE

A set of slave milson fasteners should be used in fabrication of seals on milson fastened doors. Slave milson fasteners are temporary fasteners with internal wrenching recess plug removed from the shank which allows sealant escape.

Slave milson fastener must penetrate the masking paper disks installed in door preparation procedures, paragraph 9.

(2) Lightly tap slave milson fasteners through masking paper disks using a soft hammer.

(3) Tighten fasteners until sleeve and outer section are firmly seated.

(4) Complete installation by installing enough fasteners to maintain mold line flushness requirements (A1-F18AC-SRM-200, WP008 00).

(5) Allow doors to remain installed until sealant becomes tough and rubbery. See table 1 for cure times.

12. Final Seal Preparation and Clean Up.

- a. Remove masking from mold line surfaces.

b. Trim cured sealant squeeze out flush with mold line using plastic scraper with 45° cutting edge.



To avoid possibility of water intrusion, use care when removing door not to damage seal.

c. Remove all fasteners and open door with care not to damage formed seal.

d. On doors 41, 44, 78, 79, 82, 83, 84, 100, 124, and 143:

(1) Remove spacer ring centers from inner door surface.

(2) Fill in all areas left by spacer ring centers with sealant to the height of the adjacent seal.

NOTE

The door need not be installed during curing of sealant. A slight recessed condition in filled area is acceptable.

(3) Allow sealant to cure until it becomes tough and rubbery. See table 1 for cure times.

(4) Trim outer periphery of seal flush with outer edge of structure sill.

NOTE

Minor burnishing of the dry film lubricant on nut threads is acceptable during this operation.

(5) Remove cured sealant from fastener holes and nut elements using a rotating nylon brush.

(6) Touch up any bare exposed aluminum surface around fastener holes per paragraph 4.

- e. On all other doors with removable fasteners:

(1) Remove all spacer rings and/or paper disks from seal and door.

(2) Remove masking from interior structure surfaces.

(3) Trim outer periphery of seal flush with outer edge of structure sill.

NOTE

Minor burnishing of the dry film lubricant on nut threads is acceptable during this operation.

(4) Remove cured sealant from fastener holes and nut elements using a rotating nylon brush.

(5) Touch up any bare exposed aluminum surface around fastener holes per paragraph 4.

f. On doors containing milson panel fasteners:

(1) Remove the punched masking paper disks from milson receptacles using a metal scribe or stiff wire.

(2) Removed cured sealant from around stud in milson receptacle.

(3) Remove cured sealant from milson receptacle stud using milson stud clean up tool.

(4) Remove any cured sealant from milson retaining ring recesses in door using cleaning tool.

(5) Touch up any bare exposed aluminum surface around fastener holes and/or receptacles per paragraph 4.

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

g. Clean petrolatum from formed seal using clean cheesecloth moistened with solvent or cleaning compound. Allow to air dry for 15 minutes.

NOTE

Hinged doors do not require hot water rinsing.

h. Clean petrolatum from door surface by rinsing in hot water and then cleaning with clean cheesecloth moistened with solvent or cleaning compound. Allow to air dry for 15 minutes.

i. Touch up any bare exposed aluminum surface on door per paragraph 4.

j. Apply a light even coat of talcum powder over formed seal.

13. Seal Inspection Criteria.

a. Visually inspect for voids or skips that will allow water leakage.

b. Voids or bubbles 0.20 inch or less in diameter and are located 0.20 inch from outer edge of seal are acceptable.

c. Formed seal width shall be 0.30 inch from center line of fastener pattern to inner edge of formed seal.

d. Formed seal width shall be 0.10 inch from spacer ring recess to inner edge of formed seal.

e. Butt joint between door and skin shall be completely filled and trimmed flush with mold line.

f. Butt joint between adjacent doors shall be completely filled and trimmed flush with mold line.

g. Inspect adhesion of formed seal by firmly drawing thumb across edges of seal. Formed seal shall show no adhesion failure from structure.

h. Inspect cure of formed seal by compressing seal with thumb nail to check elasticity and proper thickness to maintain water seal.

i. Final seal thickness shall be a minimum of 0.010 inch.

14. REPAIR OF FORM IN PLACE SEAL.**CAUTION**

Avoid using metal knife or abrasive cutting tool to remove sealant. Damage to underlying finish system and/or structure may occur.

a. Remove damaged section of seal using sealant scraper.

b. Remove residual sealant using abrasive mat.

c. Do surface preparation, paragraph 4, if finish system was damaged during seal removal.

d. Do primer adhesion test, paragraph 5, to surface receiving formed seal.

e. Do cleaning procedures, paragraph 6, to surface receiving formed seal.

f. Do application of adhesion promoter, paragraph 7, to surface receiving formed seal.

g. Do masking procedures, paragraph 8, to surfaces adjacent to repair area.

NOTE

Small voids one inch or less in diameter, in non-fuel seal area which do not create a leakage path across the seal may be repaired without closing door. Apply sealing compound flush with adjacent seal.

h. Do door preparation, paragraph 9, for area receiving formed seal.

NOTE

Use only class B sealing compound for repairs except for very minor touch-up repairs where class A brushable sealing compound is most effective.

i. Do sealant preparation and application, paragraph 10. Apply enough sealing compound to fill void area.

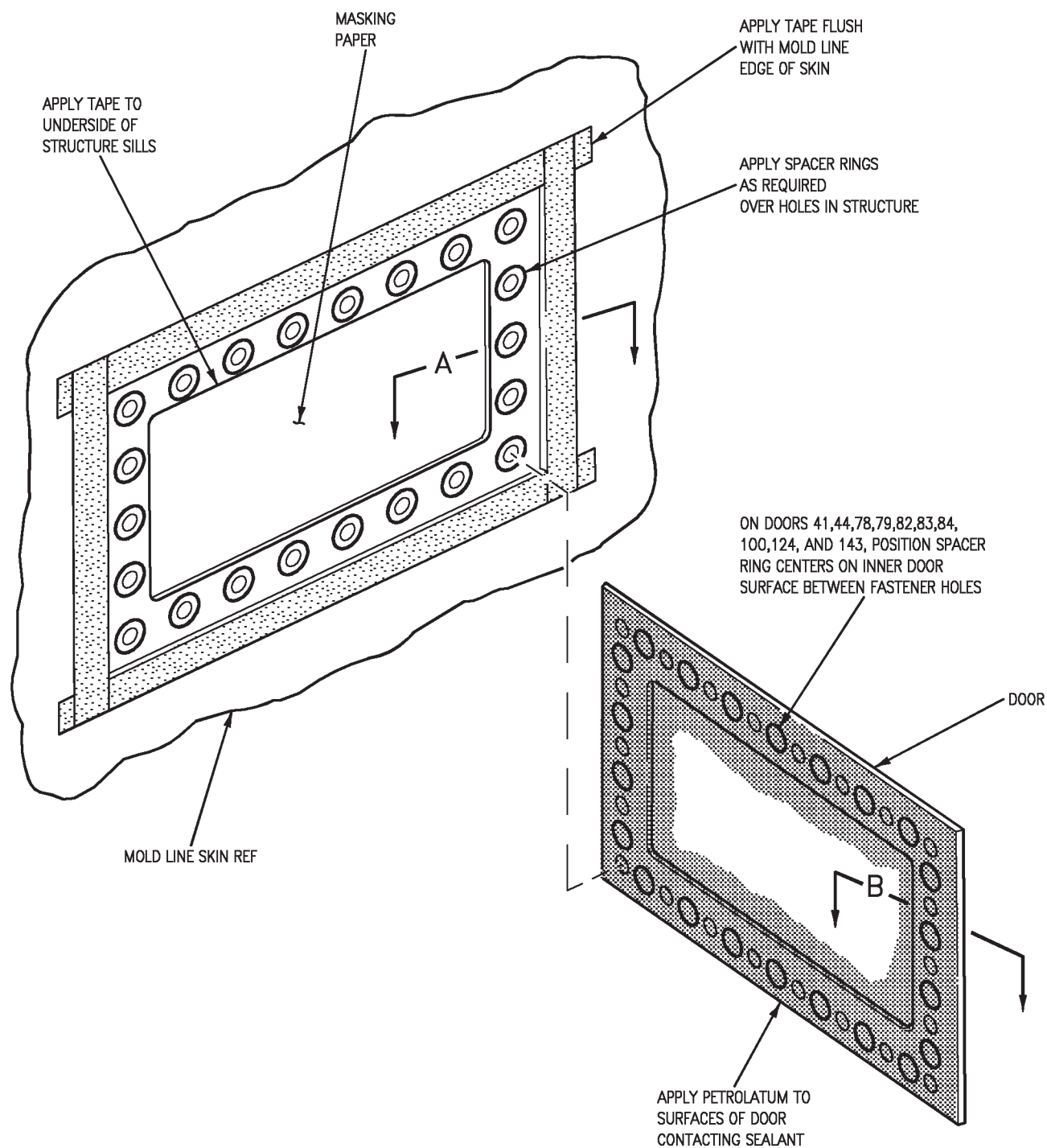
j. Do door installation, paragraph 11.

k. Do final seal preparation and clean up, paragraph 12.

l. Do seal inspection criteria, paragraph 13.

Table 1. Sealant Class, Application, and Cure Information

| Sealant | Class | Application Time (Hours) | Approximate Tack Free Time (Hours) 1 | Approximate Cure Time (Hours) 1 3 |
|---|---------|--------------------------|---|--------------------------------------|
| MIL-S-83430 | A-1/2 | 1/2 | 10 | 30 |
| | A-2 | 2 | 24 | 48 |
| | B-1/4 2 | 1/4 | 6 | 16 |
| | B-1/2 | 1/2 | 10 | 30 |
| | B-2 | 2 | 24 | 72 |
| | B-4 | 4 | 36 | 90 |
| | B-6 | 6 | 48 | 120 |
| NOTES 1 Based on 75-79°F, temperature and 45 to 55 % relative humidity. 2 Use this type sealing compound during winter months when temperatures and relative humidities are low. 3 To accelerate sealing compound cure, apply 250 watt infrared heat source to sealant area for 2 hours. Do not exceed 140°. Do not apply heat source until tack free condition is reached. Increase relative humidity when possible. | | | | |



PREPARATION FOR SEALING

Figure 1. Form In Place Seal (Sheet 1)

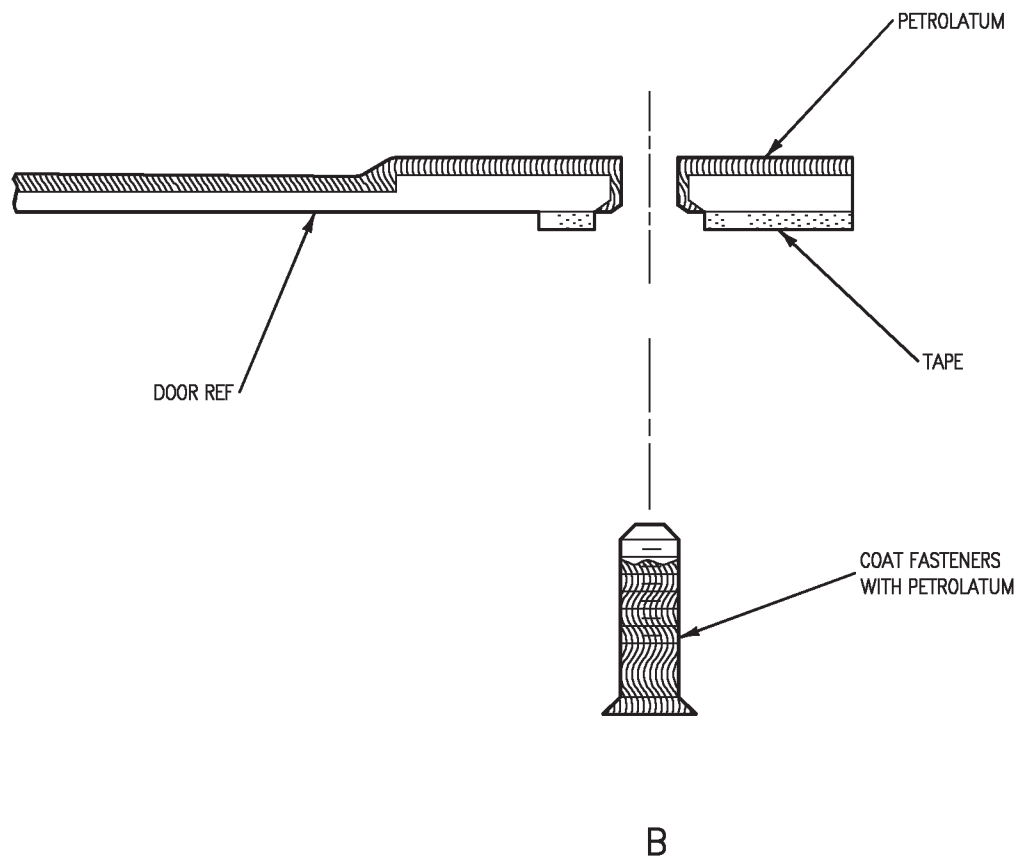
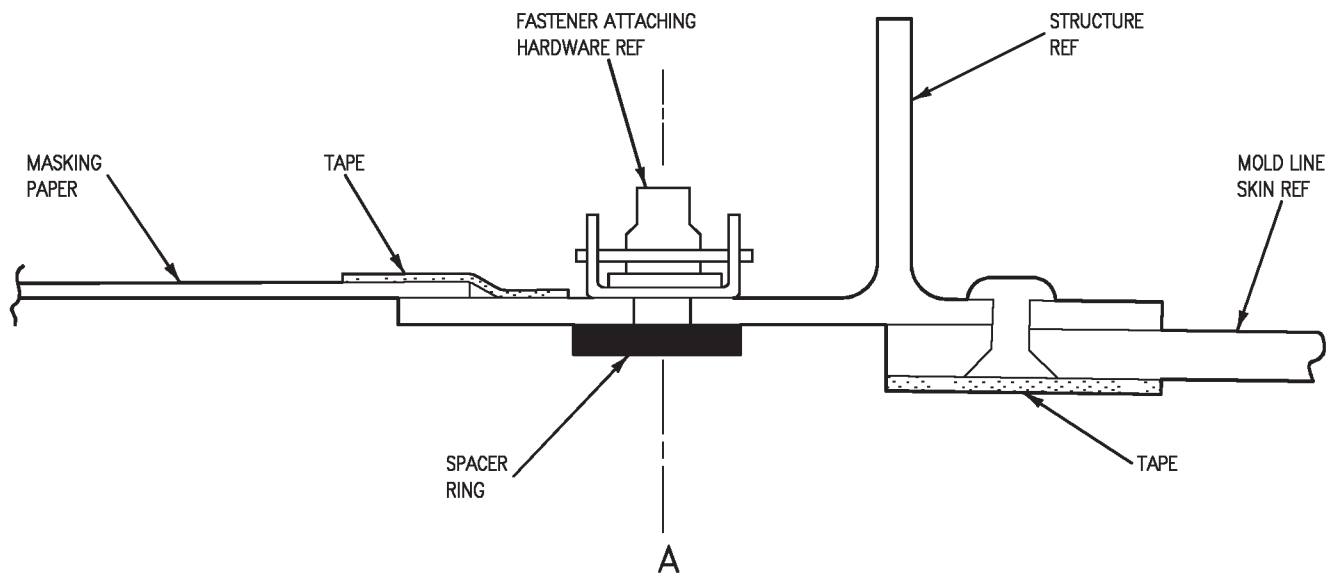
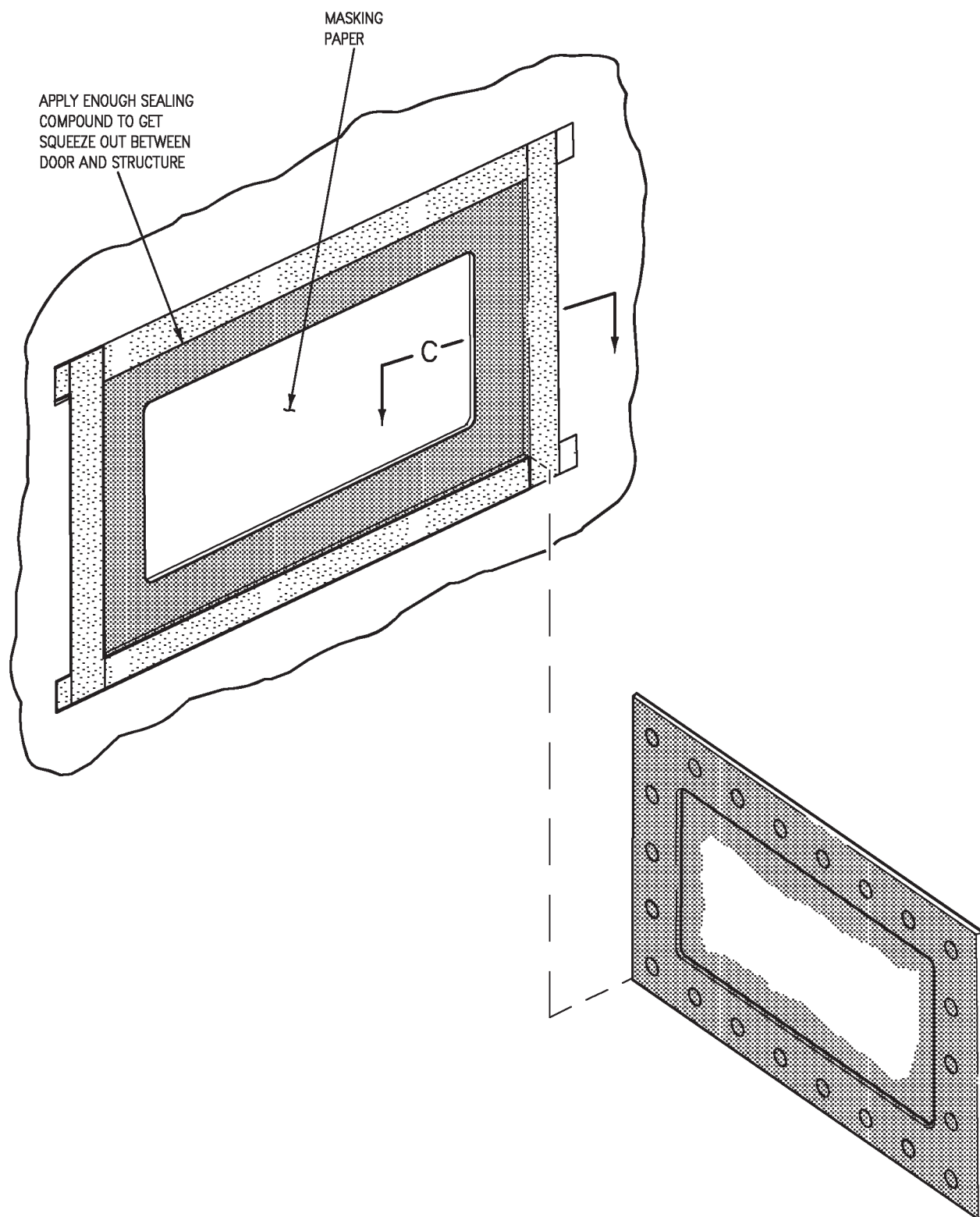
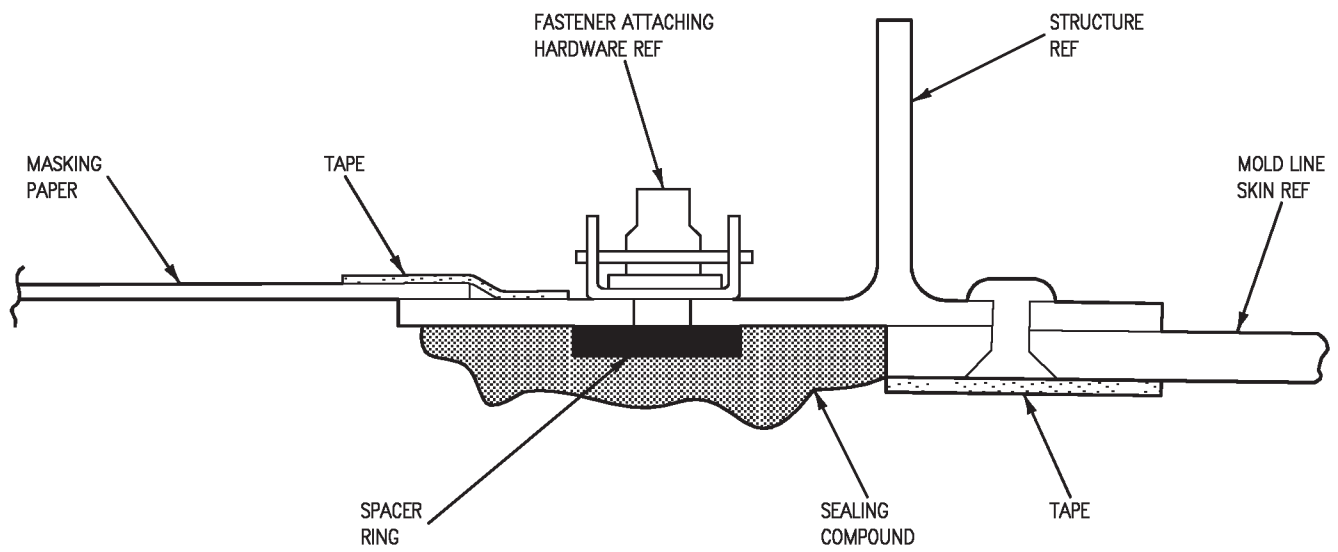


Figure 1. Form In Place Seal (Sheet 2)



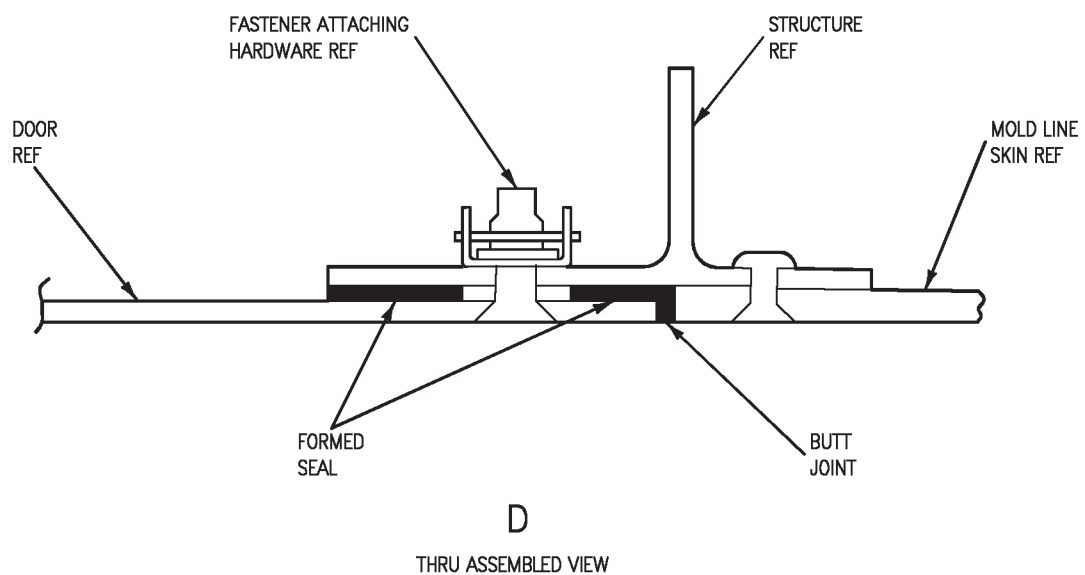
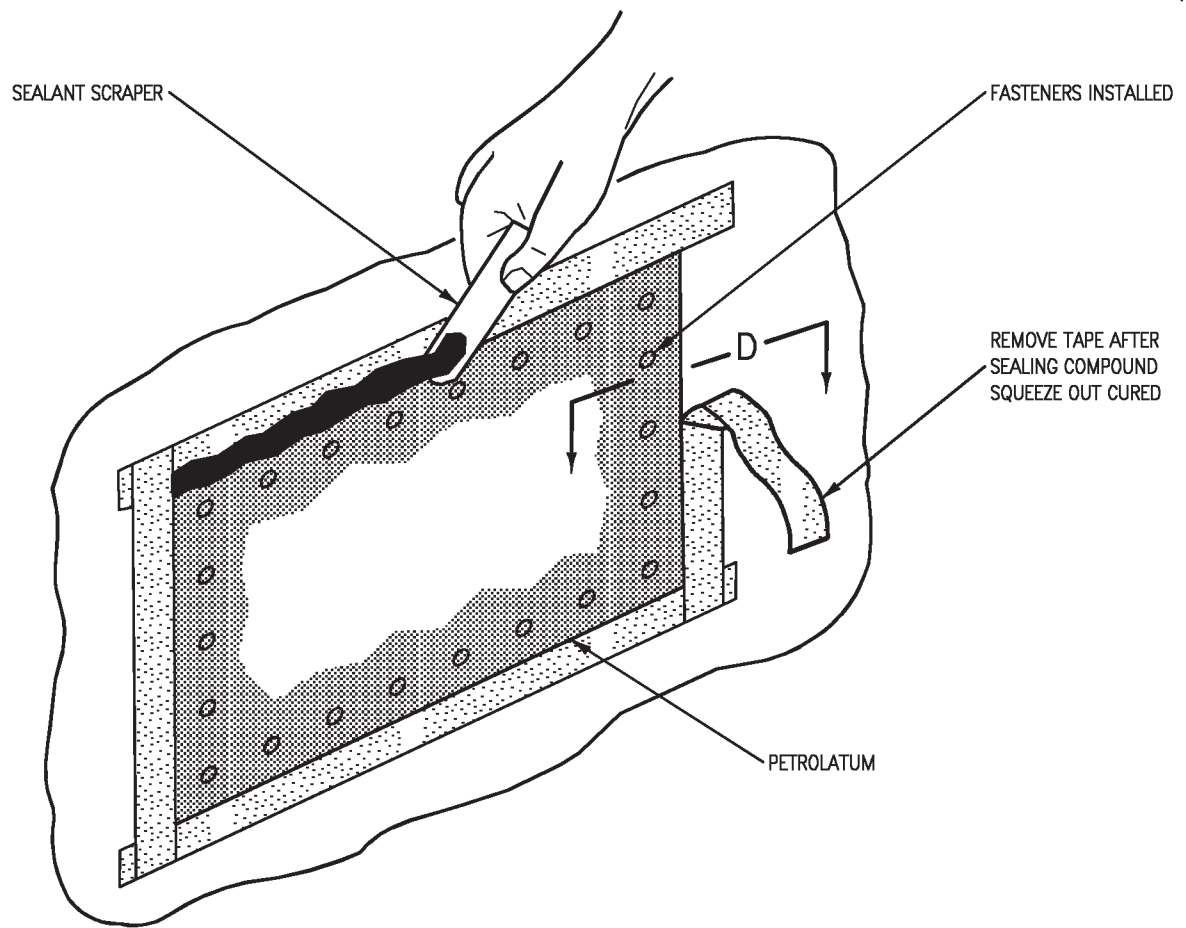
SEALANT APPLICATION

Figure 1. Form In Place Seal (Sheet 3)



C

Figure 1. Form In Place Seal (Sheet 4)



FINAL SEAL PREPARATION AND CLEAN UP

Figure 1. Form In Place Seal (Sheet 5)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

PRIMING PROCEDURES

This WP supersedes WP011 00, dated 1 February 1995.

Reference Material

| | |
|--|------------------|
| Plane Captain Manual | A1-F18AC-PCM-000 |
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| General Information | WP003 00 |
| Cleaning..... | WP006 00 |
| Chemical Treatment..... | WP008 00 |

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| Primer Film Properties | 2 |
| Procedures..... | 2 |
| Safety Precautions | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The aircraft uses two types of primers. MIL-P-23377, Type 2, Class 1 primer is applied to all mold line areas of aircraft and MIL-P-23377, Type 1, Class 1 primer is applied to all internal areas of aircraft. When environmental regulations restrict the use of these solvent primer systems, then an environmental compatible version having low solvent content or a waterborne primer may be used.

NOTE

Environmental compatible primers shall not be used in wet faying surfaces such as wet installation of fasteners, parts, or assemblies.

3. GENERAL INFORMATION.

a. Pot life for catalyzed primer is noted. All catalyzed primer not used within noted time shall be discarded.

b. Components are age controlled and shall be used within the shelf life specified by the manufacturer.

c. Mix components from the same kit. Never mix components of kits from different manufacturers.

4. SAFETY PRECAUTIONS.

a. Primers and their catalysts are irritants. Care shall be taken to prevent contact with skin or eyes.

b. Always ground aircraft or parts, being primed (A1-F18AC-PCM-000), electrical, static, grounding.

c. Spray operator shall wear respirator when spraying primer.

d. Food or drink is prohibited in mixing or spray areas.

e. No smoking in mixing or spray areas.

f. Make sure the mixing and spraying areas are well ventilated.

5. PRIMER FILM PROPERTIES.

a. Primer shall be applied to a uniform dry film thickness within limits as specified below:

(1) 1 coat - 0.0004 to 0.0010 inches, 0.4 to 1.0 mils.

(2) 2 coats - 0.0008 to 0.0014 inches, 0.8 to 1.4 mils.

NOTE

When two coats of primer are specified for detail parts, it is permissible to apply only one cross coat of primer, providing the two coat film thickness requirement is met.

b. Cured primer film shall be free of runs, sags, blisters, and shall be a continuous coating.

c. Runs shall not be cause for rejection if they occur in areas which are not easily accessible, have severe contour changes, and are not visible.

d. The cured primer shall be moderately free of surface irregularities and contamination. Heavy

concentration of contamination or cratering which noticeably detracts from overall appearance of primer shall require rework.

e. Areas having fish-eyes, which have been reworked by application of an additional coat of primer are acceptable if the fish-eyes have been completely covered and if adhesion of primer in fish-eye areas is acceptable.

6. PROCEDURES.

NOTE

Use support equipment listed below or suitable equipment required to meet environmental regulations concerning transfer efficiency such as HVLP or electrostatic spray equipment.

Support Equipment Required

NOTE

Alternate item type designations or part numbers are listed in parentheses.

| Part Number or Type Designation | Nomenclature |
|------------------------------------|--|
| No. 19 (No. 62) | Brinks Suction Cup Spray Gun |
| No. 66 | Brinks Fluid Tip |
| No. 15 (No. 365) | Brinks Fluid Needle |
| No. 66SD 538A | Brinks Air Cap Air Regulator Assembly With Oil Water Separator and Gage |
| GGG-M-125/6 | Respirator With Cartridge |
| No. 2 Zahn | Viscosity Cup |

Materials Required**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|------------------|------------------------|
| MIL-P-23377 TY1 | Primer |
| MIL-P-85582 | Primer |
| TY1CL1 or CL2 | (Waterborne) |
| MIL-P-23377 TY2 | Primer |
| MIL-P-85582, | Primer |
| TY2CL1 | (Waterborne) |
| MIL-T-81772-TY1 | Thinner, Aliphatic |
| D 1153 | Methyl Isobutyl Ketone |
| DISTILLED WATER | Distilled Water |
| COMMERCIAL | |
| TT-N-95, TYPE 2 | Naphtha, Aliphatic |
| CCC-C-440 TYPE 1 | Cheesecloth |
| CLASS 1 | |
| AA1048TY1CL1 | Cloth, Abrasive |
| GRIT240X9X11 | |
| H-B-695, TYPE1 | Brush, Varnish |
| GRADEA | |
| SIZE1 1/2 | |
| 599X300 | Epoxy Primer, 13 oz. |
| | Aerosol Touch Up |

7. **Mask.** (WP003 00).

8. **Cleaning.** (WP006 00 and NAVAIR 01-1A-509).

9. **Chemical Treatment.** (WP008 00).

10. **Preparation of MIL-P-23377, Type 1, Class 1 or MIL-P-23377, Type 2, Class 1 Primer.**

WARNING

MIL-P-23377, Type 1, Class 1 and MIL-P-23377, Type 2, Class 1 primers are flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1. Refer to paragraph 11 for preparation of alternate primer.

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2. Refer paragraph 11 for preparation of alternate primer.

Primer is supplied as a two part component kit. The base component and curing solution component are mixed together before use.

a. Mix base component thoroughly to make sure solids are dispersed.

b. Pour mixed base component into a clean empty container.

c. Pour an equal amount of curing solution component slowly into container of mixed base component. Constantly stir base component when adding curing solution component.

WARNING

MIL-T-81772 thinner is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

The thinning ratio may be varied to get the proper spraying viscosity which is 14 to 19 seconds using No. 2 Zahn cup.

d. Thin mixed primer to desired viscosity using MIL-T-81772 aliphatic thinner. Thinned primer must be thoroughly stirred and strained.

NOTE

The mixed primer requires 30 minute "sweat-in" period before use. Observe 8 hour pot life.

e. If a small area is to be repaired, 599X300 primer aerosol touch up may be used.

11. Preparation of MIL-P-85582, Type 1 or Type 2 Primer.

a. Add one volume of curing solution to three volumes of base and mix thoroughly.

b. Add distilled or deionized water if required by manufacturer instructions.

NOTE

The mixed primer requires 30 minute "sweat-in" period before use. Observe 6 hour pot life.

12. Primer Application.

WARNING

Respirator is required for personnel protection when spraying primer.

a. Apply one smooth, continuous coat of primer.

b. Allow primer to dry a minimum of 30 minutes.

c. Apply additional coat(s) to get required thickness as specified in paragraph 5.

NOTE

If more than 24 hours pass between primer application, do cleaning procedures (WP006 00 and NAVAIR 01-1A-509).

d. Primer will be tack free in approximately 30 minutes and can be handled in approximately 1 hour after application. The primer will be ready for topcoating in approximately 2 hours and can be recoated without additional processing up to 24 hours after application.

13. Primer Touch Up or Rework.

a. Rework abrasions, scratches, miscellaneous damaged areas as below:

WARNING

Methyl isobutyl ketone is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

Aliphatic naphtha is highly flammable. Do not use near open flame or sparks. Use only in well ventilated areas.

(1) Clean rework area using clean cheesecloth moistened with methyl isobutyl ketone, or aliphatic naphtha.

(2) Lightly sand damaged area with abrasive cloth.

(3) Repeat substep (1).

NOTE

Damaged skin areas of less than 1 square inch do not require chemical conversion surface treatment.

(4) Damaged areas larger than 1 square inch require chemical conversion surface treatment (WP008 00).

A1-F18AC-SRM-500

Change 3

011 00

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(5) Spray or brush apply one full wet coat of primer making sure touch-up coat overlaps surrounding coating.

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FINISH SYSTEM

This WP supersedes WP012 00, dated 1 February 1995.

Reference Material

| | |
|---|------------------|
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| General Information | WP003 00 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning..... | WP006 00 |
| Stripping..... | WP007 00 |
| Chemical Treatment..... | WP008 00 |
| Priming Procedures | WP011 00 |
| Radome Finish System and Markings..... | WP015 00 |
| Forward Fuselage Main Structure Assembly Finish System and Markings.... | WP024 00 |
| Inner and Outer Wing Finish System and Markings | WP027 00 |
| Forward Center Fuselage Finish System and Markings | WP030 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |

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Record of Applicable Technical Directives

None

1. SAFETY PRECAUTIONS.

- a. Avoid continued breathing of solvent or thinner vapors.
- b. Flammable solvents or thinners are extremely easy to ignite and shall not be used in vicinity of smoking, sparks, or open flame.
- c. Wear safety glasses or faceshield and rubber gloves while working with solvents.
- d. Do not use solvents or thinners in confined areas unless specifically authorized; fumes are toxic, flammable, and explosive.
- e. Store and handle solvents or thinners in correctly labeled safety containers.
- f. Dispose of used rags in covered flammable containers.
- g. No personnel other than spray operator(s) shall be allowed in area of overspray.
- h. Enough ventilation shall be provided while spraying finish system.
- i. After each job and before each break the paint spray operator(s) must wash exposed skin with soap and water.
- j. For additional safety precautions (WP003 00 and NAVAIR 01-1A-509).

shall be done per this manual and (NAVAIR 01-1A-509).

- a. Components are age controlled and shall be used within the shelf life specified by the manufacturer.
- b. Mix components from the same kit and/or batch. Never mix components from different manufacturers.
- c. Complete finish system shall be free of runs, sags, streaks, blisters, lifting, and blushing. Slight orange peel shall not be cause for rejection.
- d. Inaccessible areas, those sprayed with extension guns or angled nozzle guns, may have a moderate amount of sags or runs because of location.
- e. Heavy overspray of one color onto another area to be painted shall be removed before applying finish system to the other area.
- f. Color determination is per specific procedures work package for area being worked.
- g. Adhesion of finish system shall be determined by completion of procedures (WP005 00, WP006 00, WP007 00, WP008 00, WP011 00, and NAVAIR 01-1A-509).

2. PAINT FILM PROPERTIES.**NOTE**

3. All paint used shall satisfy or exceed specifications of service and any touch up or repair

Thickness of finish system shall be per table 1.

Table 1. Final Finish Thickness

| Specification/Coating | Number Coats | Minimum MIL | Maximum MIL |
|---|--------------|-------------|-------------------------------|
| Polyurethane Enamel | 2 | 1.4 | 2.0 |
| Total Thickness with Primer | — | 1.8 | <div>2</div> <div>1</div> 3.0 |
| Total Leading Edge Thickness with 1 Coat Primer | 6 | 4.6 | <div>2</div> <div>1</div> 7.0 |

Table 1. Final Finish Thickness (Continued)

| Specification/Coating | Number Coats | Minimum MIL | Maximum MIL |
|--|--------------|-------------|-------------|
| NOTES <div>1</div> Except for radome. Radome finish system and marking (WP015 00). <div>2</div> Total finish system thickness may be increased by thickness of extra coating for markings and insignia. | | | |

4. POLYURETHANE ENAMEL.

Support Equipment Required
(Continued)

5. Before touch up, rework, or application of finish system, the below listed shall be done:

a. Stripping (WP007 00).

b. Cleaning (WP006 00).

c. Chemical treatment (WP008 00).

d. Priming (WP011 00).

NOTE

Use support equipment listed below or suitable equipment required to meet environmental regulations concerning transfer efficiency such as HVLP or electrostatic spray equipment.

Part Number or
Type Designation

Nomenclature

FF (FX)

Devilbiss Fluid Tip
and Needle

No. 765

Devilbiss Air Cap
Devilbiss Agitated
Pressure Tank

—

538A

Air Regulator Assembly
With Oil Water
Separator and Gage

—

Fluid Hose, 1/4
Inch I.D. Min

ZZ-H-521

Air Hose,
7/16 Inch I.D.

GGG-M-125/6

Respirator with
Cartridge

Support Equipment Required

Materials Required

NOTE

Alternate item type designations or part numbers are listed in parentheses.

NOTE

Alternate item part numbers are shown indented.

Part Number or
Type Designation

Nomenclature

No. 21

Air Filter,
Aridifer or Equal

MBC

Devilbiss Suction
Cup Spray Gun

E (FF)

Devilbiss Fluid
Tip and Needle

No. 30

Devilbiss Air Cap

(No. 43)

MBC

Devilbiss, Pressure
Spray GunSpecification
or Part Number

Nomenclature

MIL-C-83286

Aliphatic Polyurethane
Enamel

MIL-C-85285, TY1

Coating,
Polyurethane,
High Solids

TT-N-95, TYPE 2

Aliphatic Naphtha

CCC-C-440 TYPE 1

Cheesecloth

CLASS 1

AA1048TY1CL1

Cloth, Abrasive

GRIT320X9X11

6. **PREPARATION.** To determine color, see applicable finish system work package.

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

Polyurethane is supplied as a two part component kit. The base component and curing solution component are mixed together before use.

a. Add curing solution to base component per manufacturer instructions.

b. Thin mixed polyurethane per manufacturer instructions.

NOTE

Mixed MIL-C-83286 polyurethane requires 15 minute "sweat-in" period before use. Observe 8 hour pot life. Mixed MIL-C-85285 does not require a "sweat-in" time. Observe 4 hour pot life.

7. APPLICATION.

a. Mask area not receiving finish system, masking (WP003 00).

WARNING

Aliphatic naphtha is highly flammable. Do not use near open flame or sparks. Use only in well ventilated areas.

b. Remove any dirt, dust, or lint on primer surface by wiping with clean cheesecloth moistened with aliphatic naphtha or by blowing with filtered air.

NOTE

For best results, apply topcoat 2 to 3 hours after primer application. Primer or coatings that has aged 24 hours will be scuff sanded and solvent cleaned before application of topcoat.

c. Apply smooth, continuous coats of polyurethane on aircraft to meet thickness requirements of Table 1. Allow minimum of 30 minute dry time between coats. Begin painting from bottom of aircraft or surface.

d. If excessive contamination or overspray appears in the finish, sand with 320 grit abrasive cloth after enamel has cured.

e. Remove sanding dust with clean cheesecloth moistened with aliphatic naphtha.

f. Apply thin coat of polyurethane to get smoothness and uniform appearance.

g. Allow finish to dry for minimum of 16 hours at approximately 70°F before aircraft is moved to moist area.

8. ANTICHAFF COATING.

9. This is a teflon filled polyurethane coating used to prevent wear to structural parts. The base component and curing solution have a shelf life of 2 years from the date of manufacture.

NOTE

Use support equipment listed below or suitable equipment required to meet environmental regulations concerning transfer efficiency such as HVLP or electrostatic spray equipment.

Support Equipment Required

Part Number or Type Designation

Nomenclature

MIL-S-15847,
1 qt. capacity

Spray Gun and
Accessories,
Paint and Dope

Support Equipment Required (Continued)

| Part Number or Type Designation | Nomenclature |
|------------------------------------|--|
| 538A | Air Regulator Assembly With Oil-Water Separator and Gage |
| ZZ-H-521 | Air Hose, 7/16 Inch I.D. |
| — | Fluid Hose, 1/4 Inch I.D. Minimum |
| — | Infrared Heat Lamps |
| 74D110165-1001 | Repair Set |
| MS3101R16-10P | Connector |
| GGG-M-125/6 | Respirator with Cartridge |

Materials Required

| Specification or Part Number | Nomenclature |
|-------------------------------------|---|
| 822X430 | Antichafe Compound Base, Gray, FED-STD-595 Color No. 36375 |
| 822X694 | Antichafe Compound Base, Gray, FED-STD-595 Color No. 36320 |
| 824X001 | Antichafe Compound Base, Red, FED-STD-595 Color No. 11136 |
| 910X377 | Antichafe Compound, Curing Solution |
| ■ CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| MIL-T-81772, TY1 or TY2 | Thinner, Aliphatic |
| MIL-B-15319 TYPE1CLASS2 SIZE1 | Brush, Painter's |

10. PREPARATION.

- a. Safety Precautions, this WP, apply.

WARNING

Antichafe coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- b. Thoroughly stir base component to disperse pigment uniformly.

- c. Slowly add one volume of curing solution to one volume of base. Stir until a uniform color results.

- d. Allow to stand for at least 15 minutes before using. Discard material not used in 4 hours or when it becomes difficult to apply a lump free, uniform coating.

11. APPLICATION.

- a. Before touchup, rework or application of antichafe coating; paragraph 5, steps a, b, and c apply.

- b. Mask surfaces not to be coated (WP003 00).

- c. Prime surfaces to be coated (WP011 00).

WARNING

MIL-T-81772 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

- d. Allow primer to dry at least 1 hour but not more than 8 hours. If 8 hour drying time is exceeded, clean with cheesecloth moistened with MIL-T-81772, then apply an additional light uniform coat.

- e. Apply antichafe coating by spray or brush methods listed below:

- (1) Spray apply five or six successive coats to get a dry film thickness of 0.004 to 0.006 inch.

or

- (2) Brush apply one uniform, wet coat. Allow to dry 2 hours. Brush apply a second coat to get a dry film thickness of 0.008 to 0.010 inch.

f. Allow to air dry 24 hours before using part. Full cure is complete in 6 to 10 days at 70 degrees F.

g. Coating can be force dried by connecting infrared heat source to 74D110165 repair set with MS3101R16-10P connector.

h. On 74D110165 repair set, do the following:

(1) Set temperature to 200°F.

(2) Set time for 50 to 60 minutes.

12. WALKWAY COATING.

13. A coating of abrasive grain, non-slip material, is applied directly over the polyurethane enamel finish. The walkway coating is applied to walkway areas that receive heavy traffic. For walkway coating location (WP024 00 and WP030 00).

NOTE

Use support equipment listed below or suitable equipment required to meet environmental regulations concerning transfer efficiency such as HVLP or electrostatic spray equipment.

Support Equipment Required

NOTE

Alternate item type designations or part numbers are listed in parentheses.

| Part Number or Type Designation | Nomenclature |
|---------------------------------|---------------------------------|
| No. 21 | Air Filter, |
| MBC | Aridifer or Equal |
| E (FF) | Devilbiss Suction Cup Spray Gun |
| No. 30 (No. 43) | Devilbiss Fluid Tip and Needle |
| MBC | Devilbiss Air Cap |
| FF (FX) | Devilbiss, Pressure Spray Gun |
| | Devilbiss Fluid Tip and Needle |

Support Equipment Required (Continued)

NOTE

Alternate item type designations or part numbers are listed in parentheses.

| Part Number or Type Designation | Nomenclature |
|---------------------------------|--|
| No. 765 | Devilbiss Air Cap |
| — | Devilbiss Agitated Pressure Tank |
| 538A | Air Regulator Assembly With Oil Water Separator and Gage |
| — | Fluid Hose, 1/4-Inch I.D. Min |
| ZZ-H-521 | Air Hose, 7/16-Inch I.D. |
| GGG-M-125/6 | Respirator |

Materials Required

NOTE

Alternate item part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|-----------------------------------|-------------------|
| TT-N-95, TYPE 2 | Aliphatic Naphtha |
| MIL-A-21380, TYPE 1, GRIT NO. 100 | Grain, Abrasive |
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| MIL-G-5634, TYPE 3 | Grain, Abrasive |

a. Safety precautions, this WP, apply.

b. Mask areas not receiving walkway coating (WP003 00).

WARNING

Aliphatic naphtha is highly flammable.
Do not use near open flame or sparks.
Use only in well ventilated areas.

c. Clean area receiving walkway coating by wiping with clean cheesecloth moistened with aliphatic naphtha.

d. Prepare walkway coating per substeps below:

(1) Prepare applicable color polyurethane enamel, paragraph 6.

NOTE

Substep (2) or (3) may be used in preparing walkway coating.

(2) Mix 80cc of abrasive grain with one quart of polyurethane enamel.

(3) Mix one cup of 80 grit aluminum oxide with one quart of polyurethane enamel.

NOTE

Abrasive grain should be applied in a thin layer not completely covering walkway surface.

e. Roller apply one coat of walkway coating or spray apply three coats of walkway coating. No dry time between coats is required.

f. Do not apply topcoat over walkway coating.

g. Allow polyurethane coating to dry for minimum of 16 hours at approximately 70°F before aircraft is moved to moist area.

14. POLYURETHANE TAPE APPLICATION.

15. Polyurethane tape is applied to leading edges to protect finish system from damage.

Support Equipment Required

None

Materials Required**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|-------------------------|---|
| 8681-GREY-36320-3IN | Plastic Strip, Press (Polyurethane Tape) |
| D 1153 | Methyl Isobutyl Ketone |
| MIL-S-83430 CLA-1/2 | Sealing Compound |
| 2216BA | Edge Sealer |
| MILA9962TY1CL1 | Mat, Abrasive |
| GRAX9X11 | |
| MIL-D-16791, TYPE 1 | Detergent, General |
| MIL-C-85570, TYPE 1 | Cleaning Compound |
| CCC-C-440 TYPE 1 | Cheesecloth |
| CLASS 1 | |
| AA1048TY1CL1 | Cloth, Abrasive |
| GRIT400X9X11 | |
| No. 86 | Adhesion Promoter |
| TT-T-548 | Toluene, Technic |
| A-A-883, TYPE 1, IIN | Tape, Pressure Sensitive |

16. TAPE REPAIR LIMITS.

a. If damaged area on polyurethane tape exceeds 2 feet in length, remove all polyurethane tape, prepare surface and apply new polyurethane tape.

NOTE

Repair splices shall be a minimum of 1 foot in length.

b. If damaged area on polyurethane tape is less than 2 feet in length, prepare surface and splice in a new section of polyurethane tape.

17. SURFACE PREPARATION.

a. Remove damaged polyurethane tape.

WARNING

Methyl isobutyl ketone is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

CAUTION

If only a section of polyurethane tape was removed, use care when cleaning residual adhesive not to damage remaining polyurethane tape.

b. Remove residual adhesive on leading edge with abrasive mat moistened with methyl isobutyl ketone.

c. Clean leading edge with detergent and water to remove any surface contamination.

d. If paint is not damaged, go to step i.

e. If paint on leading edge is chipped or missing, feather edge sand to smooth transition between damaged and painted area.

f. Chemical treat sanded area (WP008 00) and apply finish system. Do polyurethane enamel procedures, this WP.

g. Lightly sand leading edge with 400 grit abrasive cloth to remove overspray roughness.

h. Remove sanding dust by wiping with clean cheesecloth moistened with methyl isobutyl ketone.

WARNING

MIL-S-83430 sealing compound is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

i. To minimize air bubbles and increase adhesion, do steps below:

(1) Prepare MIL-S-83430 sealing compound. Do sealant preparation procedures (A1-F18AC-SRM-200, WP011 00).

(2) Apply sealant to all gaps and seams where tape is to be applied to make surface flush with adjacent structure. Do sealant application procedures (A1-F18AC-SRM-200, WP011 00).

(3) Cure sealant. Refer to cure information, table 1 (A1-F18AC-SRM-200, WP011 00).

j. Apply pressure sensitive tape approximately 0.125 inch aft of where edges of polyurethane tape will be applied.

WARNING

No. 86 adhesion promoter is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

TT-T-548 toluene is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

Do step k if adhesion promoter has not been diluted as noted by manufacturer.

k. Prepare adhesion promoter by mixing two parts toluene to one part adhesion promoter.

l. Use a clean cheesecloth to apply adhesion promoter within area masked.

m. Allow adhesion promoter to air dry for a minimum of 20 minutes before tape application.

18. TAPE APPLICATION.

NOTE

Unless stated differently, tape shall always be cut 0.125 inch short of structure edge to make sure of proper adhesion.

a. For tape width and length on inboard leading edge flap, see WP027 00, figure 1.

b. For tape width and length on outboard leading edge flap, see WP027 00, figure 1.

NOTE

It is optional to apply tape to leading edges of vertical stabilizer and horizontal stabilator. The use of 3 inch wide polyurethane tape on these surfaces have shown satisfactory performance.

c. Cut tape to required length and trim a 1.00 radius to all corners.

d. After tape is cut to required length, remove clear polyurethane backing from glossy side of tape.



Do not stretch tape when centering on tip of leading edge; a bad bond between tape and leading edge will occur.

e. Pull tape at each end to remove sag and center on tip of leading edge.

f. Rub a folded cheesecloth along center of tape to bond tape to tip of leading edge.

g. Bond tape to upper surface of leading edge by rubbing folded cheesecloth from tip of leading edge, aft to edge of tape.

h. Repeat method in step g for bonding tape to lower surface.

i. Establish a good bond by firmly pressing tape on leading edge using round edge plastic scraper.

j. Remove pressure sensitive tape used in masking.

k. Tape may be trimmed on the aircraft to required length using x-acto knife:

(1) Lift one edge of tape and make a small cut.

(2) Score remainder of tape from base of cut to bottom of tape.

(3) Starting at cut edge, pull along score until complete separation.

l. Remove small air bubbles by working bubbles to edge of tape using round edge plastic scraper.

m. If air bubbles continue to exist, puncture small hole at base of air bubble with pin or needle and work out trapped air using round edge plastic scraper.

19. EDGE SEALING.

a. To promote tape adhesion to leading edges, do steps below:

NOTE

2216BA edge sealer is a two part, gray, epoxy adhesive supplied in a 2 ounce kit.

(1) Prepare edge sealer per manufacturer instructions.

(2) Trowel edge sealer around polyurethane tape edges.

NOTE

Curing process may be accelerated by heating repair area to 150°F. for 3 hours.

(3) Allow edge sealer to cure at room temperature for 24 hours.

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

RADOME CORROSION PRONE AREAS

Reference Material

| | |
|--|------------------|
| Structure Repair, Forward Fuselage | A1-F18AC-SRM-220 |
| Structure Group Index | WP001 01 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning..... | WP006 00 |
| Stripping..... | WP007 00 |
| Chemical Treatment..... | WP008 00 |
| Radome Finish System and Markings..... | WP015 00 |
| Structure Repair, Forward Fuselage | A1-F18AE-SRM-650 |
| Structure Group Index..... | WP001 01 |

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| Cleaning..... | 3 |
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| Corrosion Removal..... | 3 |
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| Stripping..... | 3 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The nose radome is a fiberglass roving assembly fabricated from filament glass roving saturated with resin and cured to a strong aerodynamic shell. The radome is a electromagnetically transparent unit whose thickness and dielectric constant must be carefully controlled. The nose radome structure is 7075-T7351 aluminum alloy plate and 7075-T6 alclad. Forward section of radome is a bonded erosion resistant boot.

3. **CORROSION PRONE AREAS.** See figure 1. Causes for corrosion prone area development are:

- a. Dissimilar metal contact.
- b. Water entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Exposure to corrosive elements.

4. Radome Assembly.

a. Aluminum bronze bushings are cadmium plated to reduce dissimilar metal contact.

b. Water entry through gun blast deflector support drain holes or through damaged environmental seal may become entrapped in radome.

c. If the gun blast deflector support drains become clogged the deflector may become prone to corrosive attack. Heat from continuous use of gun may degrade the gun blast area finish system.

d. Three drain holes are located at lower aft end of the radome. Covers are used over these drain holes to prevent injection of debris. These drain holes may become clogged causing poor drainage.

5. Planar Array and Bulkhead.

a. The planar array is anodized magnesium with aliphatic polyurethane enamel finish system.

b. The aluminum forward bulkhead contains a bonded stainless steel mesh electromagnetic interference (EMI) seal.

6. **Hinge.** The hinge points contain cadmium plated aluminum bronze bushings, stainless steel

bolts, corrosion resistant steel (CRES) nuts, and aluminum and cadmium plated steel washers. The washers are sacrificial to the system and may corrode.

7. Nose Former.

a. On aircraft 161353 THRU 161966 a segmented aluminum alloy nose former contains a titanium alloy (EMI) seal bonded with silver filled conductive adhesive. The (EMI) seal interfaces the stainless steel mesh on the forward radar bulkhead.

b. The attaching bosses contain bushings, eyebolts, and (CRES) guide pins for latching.

c. Failure of the environmental seal and failure of any sealed installation may cause corrosion damage.

8. CORROSION INSPECTION (WP005 00).

Visually inspect:

a. Radome Assembly.

(1) Structure for pitting and galvanic corrosion, lower structure and drain covers are suspect areas.

(2) Gun blast deflector for pitting corrosion.

(3) Two drain holes in gun blast support and three drain holes in lower aft radome for obstructions/debris.

(4) Environmental rubber seals on gun blast deflector support and radome interface for separation, cuts, nicks, and chaffing.

(5) Former near bushings and guide pins for pitting and galvanic corrosion.

b. Planar Array and Bulkhead.

(1) Planar Array for pitting corrosion.

(2) Finish system for damage.

(3) Bulkhead for pitting corrosion, (EMI) and surrounding areas are suspect.

(4) Finish system for damage.

c. Hinge.

(1) Washers and surfaces near hinge points for pitting corrosion or rust on washers.

(2) Rubber stop for abrasions, cuts, or missing.

(3) Finish system for damage.

d. Former.

(1) (EMI) seal edge sealing for damage.

(2) (EMI) area for pitting and galvanic corrosion.

(3) Area near bosses, eyebolts, guide pins, and bushings for pitting and galvanic corrosion.

(4) Rubber seal for brittleness, chafing, or cuts.

9. **CLEANING.** (WP006 00).

10. **STRIPPING.** (WP007 00).

11. **CORROSION REMOVAL.** (WP005 00).

12. **CHEMICAL TREATMENT.** (WP008 00).

13. **FINISH SYSTEM AND MARKINGS.**
(WP015 00).

14. **CLASSIFICATION OF CRITICAL ITEMS/AREAS.**
(A1-F18AC-SRM-220, WP001 01 or
A1-F18AE-SRM-650, WP001 01).

15. **CORROSION DAMAGE EVALUATION AND LIMITS.** (A1-F18AC-SRM-220, WP001 01 or
A1-F18AE-SRM-650, WP001 01).

16. **CORROSION DAMAGE REPAIR.** (WP005 00
and A1-F18AC-SRM-220, WP001 01 or
A1-F18AE-SRM-650, WP001 01).

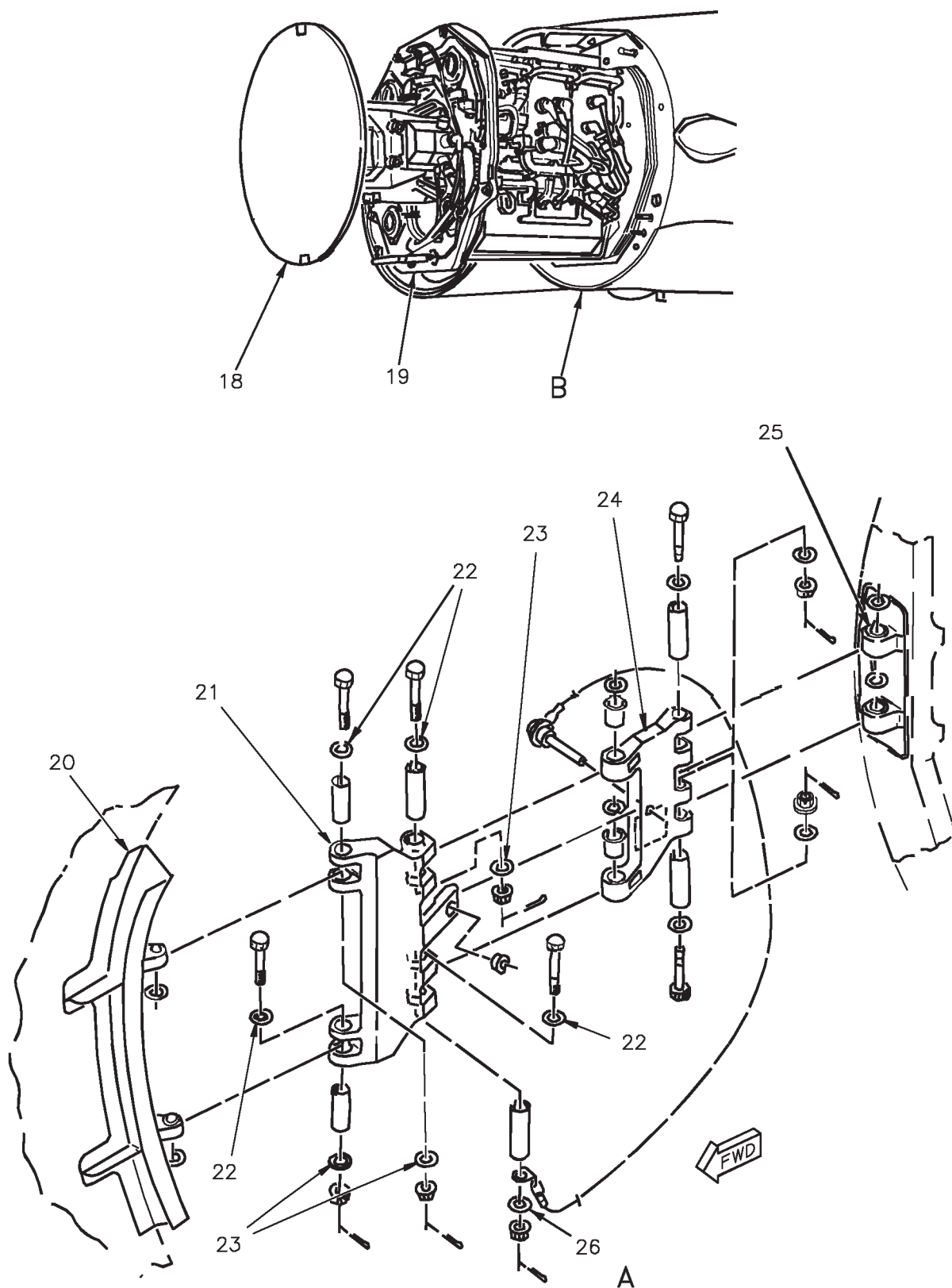


Figure 1. Radome (Sheet 2)

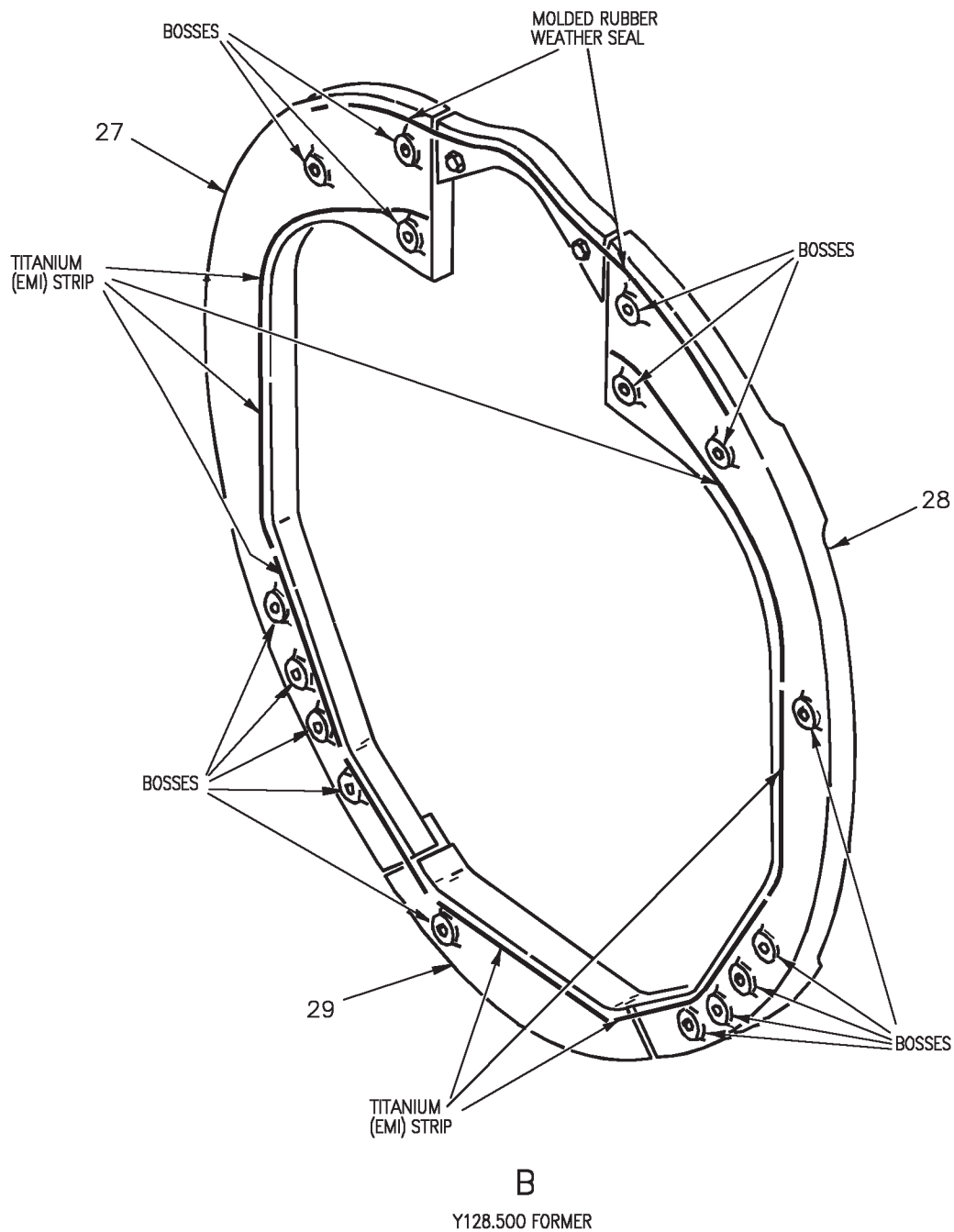


Figure 1. Radome (Sheet 3)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------------|-----------------------------------|
| 1 | Former | 7075-T6 Alclad, Sheet | Surface |
| 2 | Support | 7075-T73 Al Aly, Pressing | Surface |
| 3 | Bushing | Cadmium Plated Aluminum Bronze | Loss of Cadmium Plate |
| 4 | Stop | 7075-T6 Alclad, Sheet | Surface |
| 5 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 6 | Bushing | Cadmium Plated Aluminum Bronze | Loss of Cadmium Plate |
| 7 | Support | 7075-T73 Al Aly, Pressing | Surface |
| 8 | Receptacle | 7075-T7351 Al Aly, Plate | Pitting, Galvanically Accelerated |
| 9 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 10 | Former | 7075-T7351 Al Aly, Plate | Pitting, Galvanically Accelerated |
| 11 | Cover | 7075-T6 Alclad, Sheet | Surface |
| 12 | Cover | 7075-T6 Alclad, Sheet | Surface |
| 13 | Former | 7075-T7351 Al Aly, Plate | Pitting, Galvanically Accelerated |
| 14 | Former | 7075-T6 Alclad, Sheet | Surface |
| 15 | Strap | 7075-T6 Alclad, Sheet | Surface |
| 16 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 17 | Strap | 7075-T6 Alclad, Sheet | Surface |
| 18 | Planar Array | AZ31B Magnesium | Pitting |
| 19 | Bulkhead | 2024-T81 Al Aly, Plate | Pitting, Galvanically Accelerated |

Figure 1. Radome (Sheet 4)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------------|---|
| 20 | Support | 7075-T73 Al Aly, Forging | Pitting, Galvanically Accelerated |
| 21 | Hinge | 7075-T73 Al Aly, Forging | Pitting, Galvanically Accelerated |
| 22 | Washer | Cadmium Plated Steel | Rust |
| 23 | Washer | Cadmium Plated Steel | Rust |
| 24 | Hinge | 7075-T73 Al Aly, Forging | Pitting, Galvanically Accelerated |
| 25 | Support | 7075-T73511 Al Aly, Extruded Bar | Pitting, Galvanically Accelerated |
| 26 | Washer | MIL-C-81706 Treated Al Aly | Pitting |
| 27 | Former | 7075-T7351 Al Aly, Plate | Pitting, Galvanically Accelerated |
| 28 | Former | 7075-T7351 Al Aly, Plate | Pitting, Galvanically Accelerated |
| 29 | Splice | 7075-T7351 Al Aly, Plate | Pitting, Galvanically Accelerated |

Figure 1. Radome (Sheet 5)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

RADOME SEALS AND SEALING

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |

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| Seals | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. Sealing done on the nose radome is for corrosion control. Sealing prevents moisture entry, dissimilar metal contact, and provides a barrier between structure, skin, and the elements.

3. **SEALING.** Use MIL-S-83430, class B-4 sealing compound (WP010 00 and A1-F18AC-SRM-200, WP011 00), see figure 1. Use class B for fay surface, form in place, butt joint, and fastener sealing. MIL-S-8802 or MIL-S-81733 is the alternate, except when graphite epoxy structure or form in place door seals are used.

- a. Coat inner surface of nose cap (4).
- b. Wet install screw (5).
- c. Wet install bolts (1).
- d. Form in place seal under strap (2).

e. All structure is fay sealed during assembly, fasteners are wet installed, fillet or butt joint seals are formed at all joints.

4. **SEALS.** See figure 1. Preformed seals are as below:

a. Nose radome environmental rubber seal, part no. 74A311026. Interfaces the radome with the nose barrel forward former at fuselage station Y128.500.

b. Deck bead seal (3), part no. 11M1006-1. Interfaces at the deck and gun blast deflector.

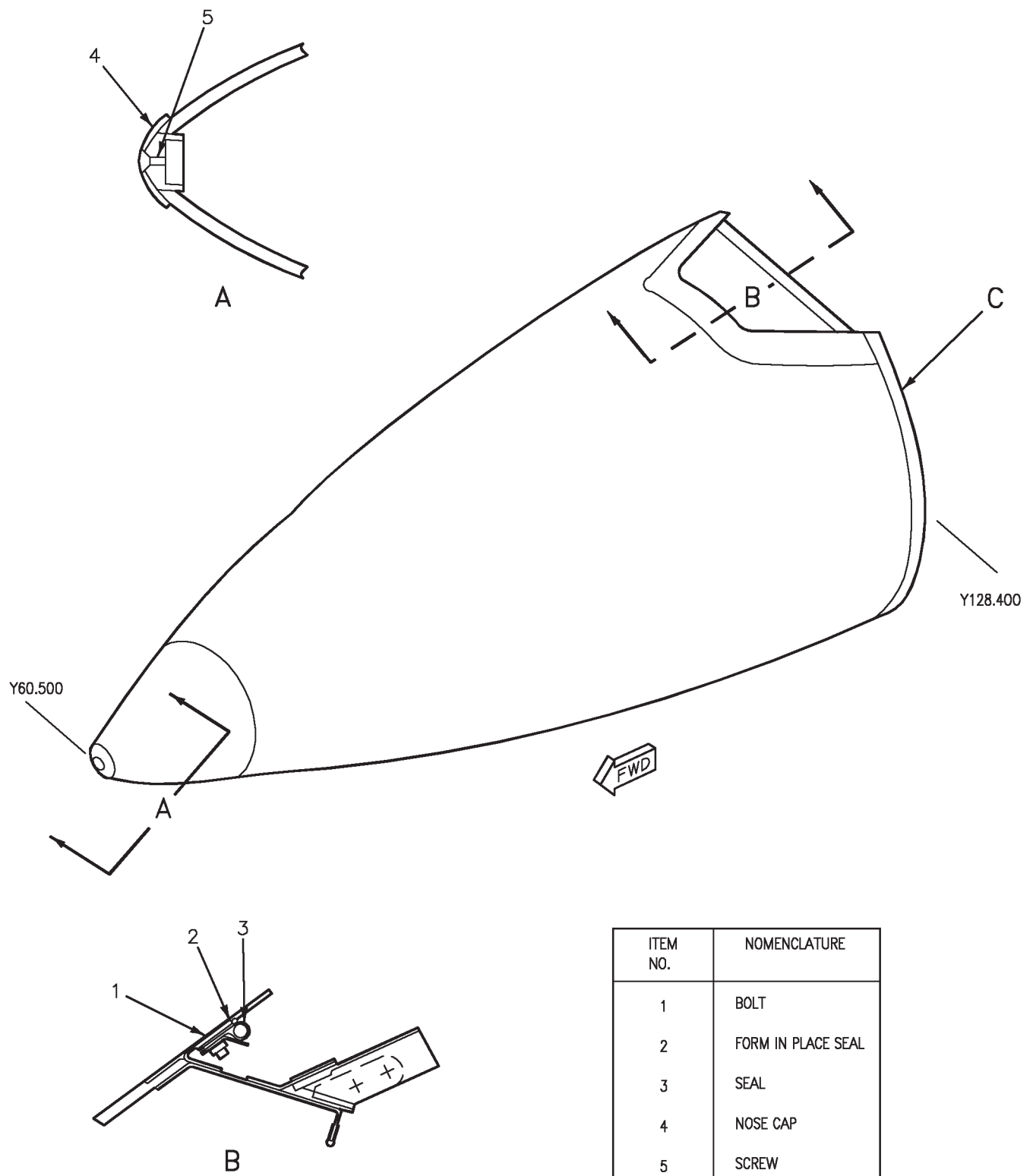


Figure 1. Seals and Sealing (Sheet 1)

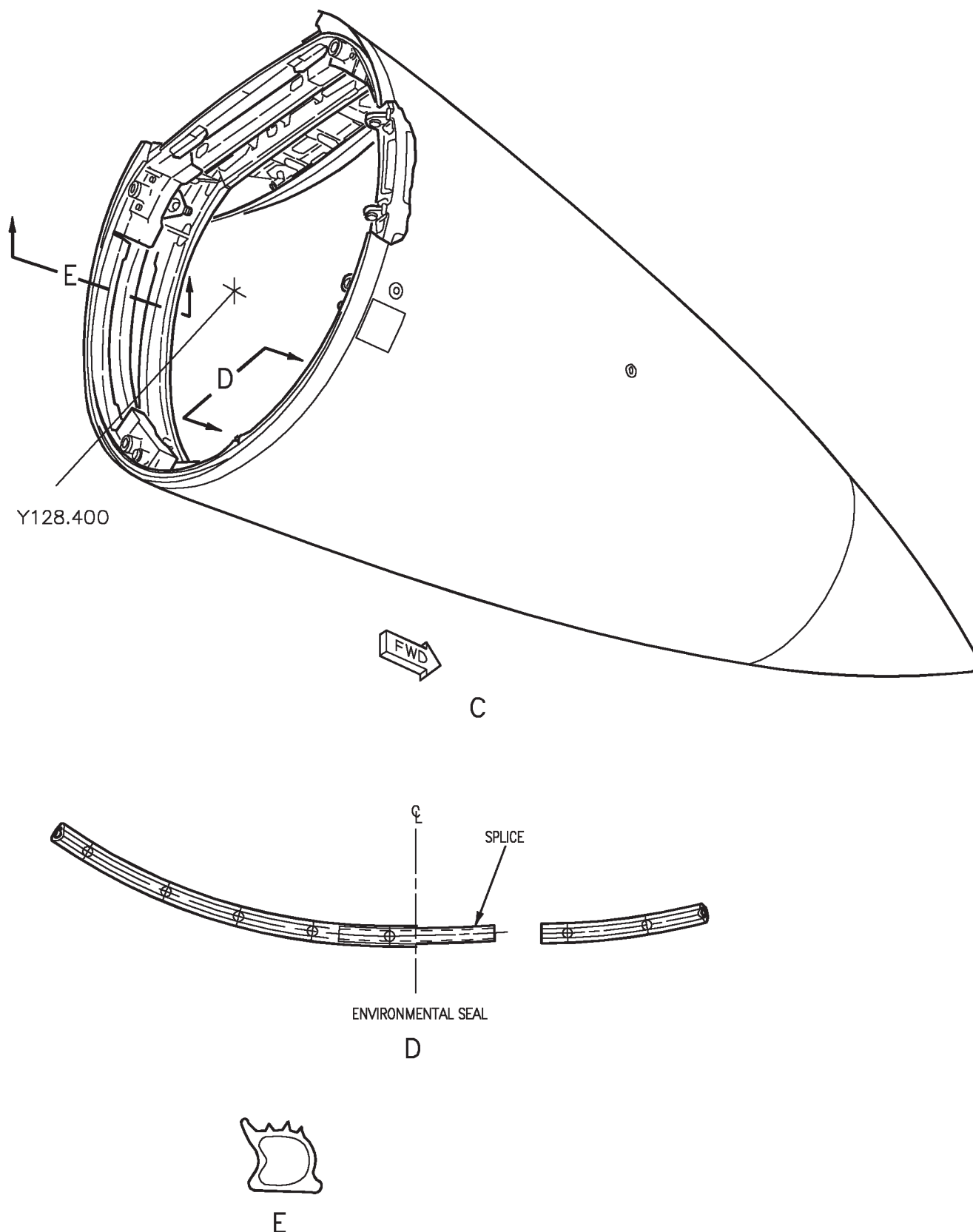


Figure 1. Seals and Sealing (Sheet 2)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

RADOME FINISH SYSTEM AND MARKINGS

| Title | WP Number |
|--|----------------------|
| Radome Finish System and Markings | |
| Part No. 74A311001-1009, -1015, or -1019 | 015 01 |
| Part No. 74A311048-1001 | 015 02 |
| Part No. 74A311048-1007, -1009, or -1011 | 015 03 |

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

RADOME FINISH SYSTEM AND MARKINGS

PART NO. 74A311001-1009, -1015, OR -1019

This WP supersedes WP015 01, dated 1 February 1995.

Reference Material

| | |
|---------------------------------|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Cleaning..... | WP006 00 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |

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Record of Applicable Technical Directives

None

1. DESCRIPTION.

NOTE

2. The nose radome is a fiberglass roving assembly fabricated from filament glass roving saturated with resin and cured to a strong aerodynamic shell. The radome is an electromagnetically transparent unit. The thickness and dielectric constant must be carefully controlled. The nose radome structure is aluminum alloy and alclad. The forward section of radome has a bonded erosion resistant boot.

A select number of 74A311001 radomes were modified to meet specific performance requirements. After IAFC 139 is incorporated, evidence of this modification in the form of a coating on inside surface of radome structure may remain but requires no maintenance.

3. **FINISH SYSTEM.** See figure 1.

Use of materials other than those specified will degrade radar performance.

Support Equipment Required

None

Materials Required**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|------------------|--|
| MIL-P-23377 TY1 | Primer |
| MIL-P-85582 | Primer |
| TY1CL1 or CL2 | |
| MIL-C-83286 | Aliphatic Polyurethane Enamel |
| MIL-C-85285, TY1 | Coating, |
| | Polyurethane, |
| | High Solids |
| 822X443 | Rain Erosion Coating (Base) |
| 910X363 | Rain Erosion Coating (Curing Solution) |

4. **Outside Mold Line Surfaces.****WARNING**

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.



Trace coat and two top coats shall have a total finish thickness of 1.8 to 2.6 mils. Thickness outside this tolerance will degrade radar performance.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

a. One, 0.5 mil thick trace coat, black, FED-STD-595 color no. 17038, aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

WARNING

822X443/910X363 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

Prepare rain erosion coating per manufacturer's instructions.

b. Two coats, 0.7 to 1.0 mil thick each, gray, FED-STD-595 color no. 36375, rain erosion coating.

5. Inside Mold Line Surfaces.

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

Primer and polyurethane coating is applied to metallic structure only.

- a. One coat MIL-P-23377, Type 1, Class 1 primer. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

- b. Two coats, white, FED-STD-595 color no. 17925, aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

6. OUTSIDE MOLD LINE FINISH SYSTEM TOUCHUP.

Support Equipment Required

None

Materials Required**Specification
or Part Number****Nomenclature**

AA1048TY1CL1
GRIT240X9X11
GRIT320X9X11

Cloth, Abrasive

- a. Lightly sand the damaged area and feather-edge sand the periphery of the damaged coating.

- b. Remove sanding dust by solvent cleaning (WP006 00).

CAUTION

Avoid excessive film buildup, primarily in the overlap area. Film thickness exceeding 2.6 mils will degrade radar performance.

- c. Spot-in the damaged area taking care to overlap the original finish. Refer to paragraph 4, this WP, for applicable material, color, and thickness of coating.

7. OUTSIDE MOLD LINE FINISH SYSTEM REFINISHING.

Support Equipment Required

| Part Number or Type Designation | Nomenclature |
|------------------------------------|------------------|
| — | Vibrating Sander |

Materials Required

| Specification or Part Number | Nomenclature |
|---------------------------------|------------------|
| 421 | Tape, Insulation |
| LP378TY1CL1GRB | Plastic Sheet |
| FNSH1-0- 0045X50X96 | |
| CCC-C-440 TYPE 1 | Cheesecloth |
| CLASS 1 | |
| A-A-1047 GRIT | Paper, Abrasive |
| 180-9X11 | |
| 240-9X11 | |

a. Mask the radome boot approximately 1/16 inch past aft edge using plastic sheet and tape.

b. Mask the radome aft opening with plastic sheet and tape.



Use care when sanding, remove as little of the trace coat as possible to avoid sanding into base material.

NOTE

The finish, aft of the forward ring of rivets on the aft edge of the radome does not require removal. However, sanding is required for correct paint adhesion.

c. Carefully remove finish system by sanding with a vibrating sander until the trace coat is exposed. Wet sanding is allowed for this procedure. Use 180 grit followed by 240 grit abrasive paper.



Do not attempt to remove all the finish at aft edge of boot. Damage to boot may result.

d. Unmask the boot.

e. Carefully feather-edge sand the remaining ring of paint at aft edge of boot.



Do not use solvents on bare fiberglass for cleanup, damage may result.

f. Remove sanding dust by wiping with clean cheesecloth moistened with clean water and allow surface to dry.

g. Mask the radome boot using plastic sheet and tape.

NOTE

Complete trace coat may be applied if extensive bare fiberglass is visible. Total trace coat thickness not to exceed 0.5 mils.

h. Spot-in area of bare fiberglass with trace coat. Refer to paragraph 4, this WP, for applicable material, color, and thickness of trace coat.

NOTE

Allow 30 to 60 minutes dry time between first and second coat.

i. Apply rain erosion coating. Refer to paragraph 4, this WP, for applicable material, color, and thickness of coating.

8. **MARKINGS.** The radome markings are silk screen applied using commercial gray enamel, see figure 1 for color diagram.

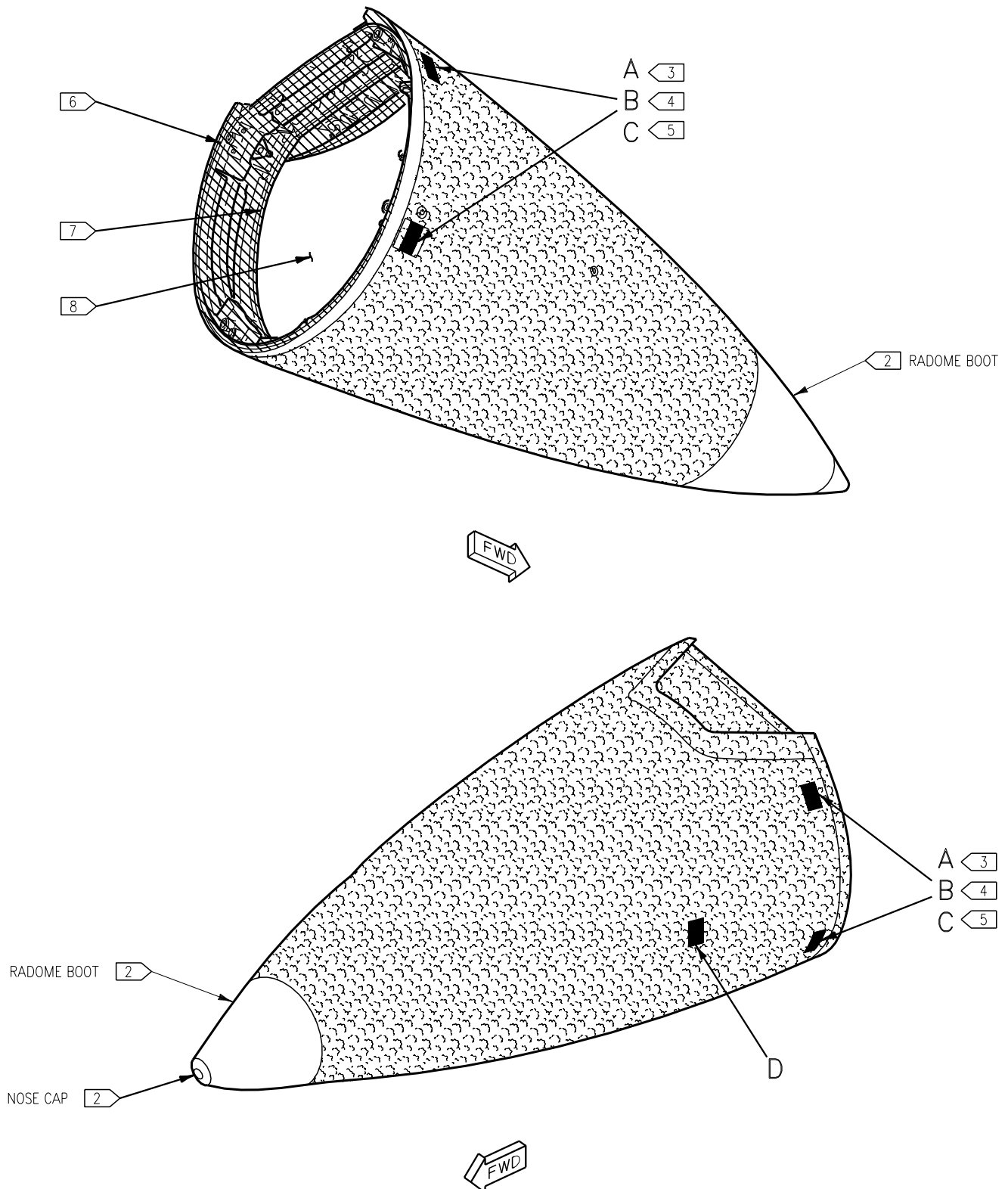
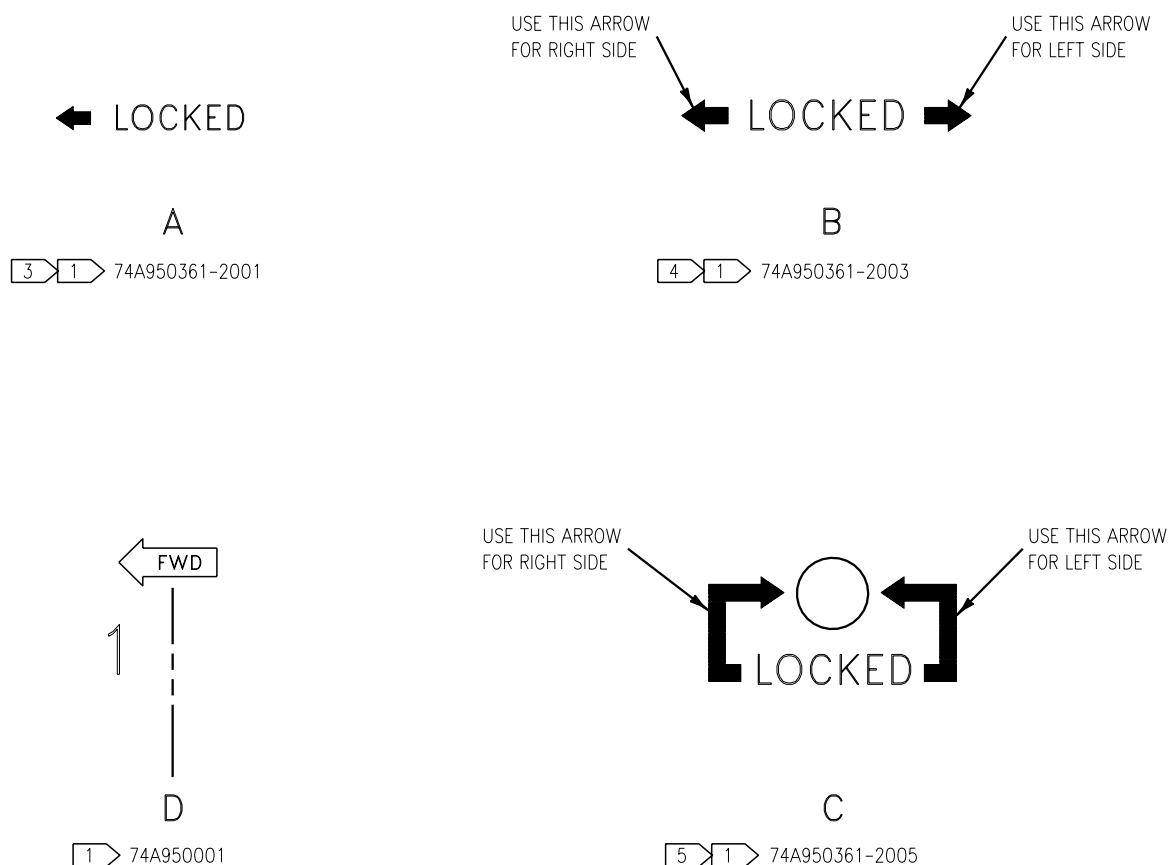


Figure 1. Finish System and Markings (Sheet 1)



LEGEND



WHITE, FED-STD-595 COLOR NO. 17925, ALIPHATIC POLYURETHANE ENAMEL.



GRAY, FED-STD-595 COLOR NO. 36375, RAIN EROSION COATING.



SILK SCREEN APPLIED, GRAY, FED-STD-595 COLOR NO. 35237, COMMERCIAL ENAMEL, 161353 THRU 161925. GRAY, FED-STD-595 COLOR NO. 36320, COMMERCIAL ENAMEL, 161926 AND UP.



DO NOT PAINT EROSION RESISTANT BOOT OR NOSE CAP.



161523 THRU 161717.



161718 THRU 161743.



161744 AND UP.



DO NOT PAINT ENVIRONMENTAL SEAL.



DO NOT PAINT BUMPER.



DO NOT PAINT INNER SURFACE OF FIBERGLASS RADOME SHELL.

Figure 1. Finish System and Markings (Sheet 2)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

RADOME FINISH SYSTEM AND MARKINGS

PART NO. 74A311048-1001

This WP supersedes WP015 02, dated 1 February 1995.

Reference Material

| | |
|---|----------------------|
| Aircraft/Armament Monitor and Control | AE-199AG-580-000/(C) |
| Elastomeric Coating..... | WP003 00 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |

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Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|--------------------|------|--|-----------------|---------|
| F/A-18 IAFC 139 | — | Nose Radome, Redesign of (ECP MDA-F/A-18-00409) | 15 Feb 91 | — |

Support Equipment Required

| Part Number or Type Designation | Nomenclature |
|------------------------------------|--|
| No. 765 — | Devilbiss Air Cap 250 Watt Infrared Heat Source |
| No.21 | Air Filter, Aridifer or Equal |
| MBC | Devilbiss Suction Cup Spray Gun |
| E | Devilbiss Fluid Tip and Needle |
| No. 30 MBC | Devilbiss, Air Cup Devilbiss, Pressure Spray Gun |
| FF — | Devilbiss Fluid Tip and Needle Devilbiss Agitated Pressure Tank |
| 538A | Air Regulator Assembly With Oil Water Separator and Gage |
| ZZ-H-521 GGG-M-125/6 | Air Hose, 7/16 Inch I.D. Respirator With Cartridge |

Materials Required

NOTE

Alternate item part numbers are shown
indented.

| Specification or Part Number | Nomenclature |
|--|--|
| MIL-P-23377 TY1 MIL-P-85582, TY1CL1 or CL2 | Primer Primer |
| MIL-P-23377 TY2 MIL-P-85582 TY2CL1 | Primer Primer |
| MIL-C-83286 MIL-C-85285, TY1 | Aliphatic Polyurethane Enamel Coating, Polyurethane, High Solids |
| FP-100CM-36375 | Structure Repair Kit |

Materials Required (Continued)

NOTE

Alternate item part numbers are shown
indented.

| Specification or Part Number | Nomenclature |
|---------------------------------|-----------------------------|
| 250-1IN | Tape, Pressure Sensitive |
| A-A-203 | Paper, Kraft, Untreated |
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |
| A-A-1047 GRIT 240-9X11 | Paper, Abrasive |
| D 1153 | Methyl Isobutyl Ketone |
| H-B-118 TY3CL2STCSZ1/2 | Brush, Artist's |

1. **FINISH SYSTEM COMPONENTS.** See
figure 1.

2. Components making up the finish system on
74A311048-1001 radome is different than those on
previous production radomes. Finish system
restoration must be carefully controlled to maintain
electromagnetic protection capability.

3. **MOLD LINE SURFACES.** The radome mold line
finish system is made up of the following
components:

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

a. One coat of MIL-P-23377, Type 2, Class 1 primer. Total dry film thickness of 0.001 to 0.002 inch. For primer preparation and application (WP011 00).

WARNING

Polyurethane rain erosion coating, anti-static tiecoat, and anti-static topcoat are flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

CAUTION

The components of this radome finish system kit must not be substituted. Using components from other radome finish systems will degrade radar performance.

NOTE

Polyurethane rain erosion coating, fluoroelastomer anti-static tiecoat, and fluoroelastomer anti-static topcoat are components of the FP-100CM-36375 structure repair kit.

b. Multiple coats of MIL-C-83445A, gray, FED-STD-595 color no. 16375, polyurethane rain erosion coating. Total dry film thickness of 0.0085 to 0.0100 inch up to Y121.900, then taper to zero thickness at Y126.900.

c. One coat of AMS3138/3, gray, FED-STD-595 color no. 16375 fluoroelastomer anti-static tiecoat. Total dry film thickness of 0.0005 to 0.0020 inch.

d. Two coats of AMS3138/6, gray, FED-STD-595 color no. 36375 fluoroelastomer anti-static topcoat. Total dry film thickness of 0.001 to 0.002 inch.

4. **INTERIOR SURFACES.** Primer and polyurethane coatings are applied to metallic structural surfaces only. Maintain electromagnetic protection capability on interior surfaces (AE-199AG-580-000/(C), WP003 00). The radome interior finish system is made up of the following components.

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

- a. One coat MIL-P-23377, Type 1, Class 1 primer. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

- b. Two coats, white, FED-STD-595 color no. 17925, aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

5. **MARKINGS.** The radome markings are silk screen applied using commercial gray enamel. See figure for color diagram.

6. **FINISH SYSTEM DAMAGE EVALUATION.** See figure 1.

7. Damage is classified as negligible and repairable. Damage not listed or exceeding limits below requires depot engineering disposition.

8. **NEGLIGIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. The anti-static coating contains many small fibers that

can tear from the surface leaving 0.005 inch wide void. This damage is negligible and does not require repair.

9. **REPAIRABLE DAMAGE.** Repairable damage is damage that can be permanently repaired with no adverse affect on radome. Repair of class I, II, III, and IV damages is organizational maintenance.

10. **Class I Damage.** This class of damage applies to damage that extends into the anti-static coatings only. Damage should be at least 0.125 inch wide but small enough that a brush touch up will produce a satisfactory appearance. For repair of damage, refer to paragraph 15 this WP.

11. **Class II Damage.** This class of damage applies to damage that extends into the polyurethane rain erosion coating but does not penetrate the radome shell. Damage should be small enough that a brush touch up will produce a satisfactory appearance. For repair of damage, refer to paragraph 16 this WP.

12. **Class III Damage** This class of damage applies to damage that extends into the anti-static coatings only and is too large for brush touch up. This class of damage is also applicable when entire radome requires reapplication of anti-static coatings. Reapplication of anti-static coatings is necessary due to color fading or when radome takes on a frayed appearance due to fiber ends protruding from the anti-static coating. For repair of damage, refer to paragraph 17 this WP.

13. **Class IV Damage.** This class of damage applies to damage that extends into the polyurethane rain erosion coating and is too large for brush touch up. This class of damage is also applicable when entire radome requires reapplication of polyurethane rain erosion coating. For repair of damage, refer to paragraph 18 this WP.

14. **REPAIRS.**

15. **Class I Repair.** Repair applies to damage which extends into the anti-static coating only.

- a. Verify that damage qualifies for class I repair.

- b. Lightly scuff sand damaged area using 240 grit or finer abrasive paper.

CAUTION

Do not use organic solvents; isopropyl alcohol, methyl isobutyl ketone, or 1,1,1-trichloroethane on radome mold line surfaces. Solvents can cause the anti-static coating to blister.

- c. Clean damaged area with soap and water. Use clean cheesecloth to wipe surface dry.
- d. Allow area to air dry for 10 to 15 minutes.

WARNING

Anti-static topcoat is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

- e. Prepare a suitable amount of catalyzed anti-static topcoat per manufacturer's instructions.
- f. Brush apply one coat to damaged area.
- g. Allow to cure 24 hours.

16. Class II Repair. Repair applies to damage which extends into the polyurethane rain erosion coating.

- a. Verify that damage qualifies for class II repair.
- b. Lightly scuff sand damaged area using 240 grit or finer abrasive paper.

CAUTION

Do not use organic solvents; isopropyl alcohol, methyl isobutyl ketone, or 1,1,1-trichloroethane on radome mold line surfaces. Solvents can cause the anti-static coating to blister.

- c. Clean damaged area with soap and water. Use clean cheesecloth to wipe surface dry.

- d. Allow area to air dry for 10 to 15 minutes.

WARNING

Refinishing materials : primer, rain erosion coating, anti-static tiecoat, and anti-static topcoat are flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

- e. Prepare a suitable amount of MIL-P-23377, Type 2, Class 1 primer. For primer preparation (WP011 00).
- f. Brush apply one coat of primer to damaged area.
- g. Allow primer to air cure for a minimum of 30 minutes.
- h. Prepare a suitable amount of polyurethane rain erosion coating per manufacturer's instructions.
- i. Brush apply rain erosion coating in multiple coats to damaged area. Allow 10 to 20 minute cure between coats. Apply coatings until damaged area is filled flush with adjacent rain erosion coating.
- j. Allow to air cure for 30 minutes to 4 hours before applying tiecoat.
- k. Prepare a suitable amount of fluoroelastomer anti-static tiecoat per manufacturer's instructions.
- l. Brush apply one coat to repair area.
- m. Allow to air cure 30 to 60 minutes.
- n. Prepare a suitable amount of anti-static topcoat per manufacturer's instructions.
- o. Brush apply two coats to repair area.

NOTE

Preferred cure is step p, alternate cure is step q.

- p. Allow repair area to air cure 7 days at 70° to 75° F and 45 % relative humidity.

q. Allow repair area to air cure for 24 hours at 70° to 100°F. followed by 3 hours at 150°F using 250 watt infrared heat source.

17. Class III Repair. Repair applies to damage which extends into the anti-static coating only. Repair requires spray touch-up or reapplication of entire anti-static coating

a. Verify that damage qualifies for class III repair.

NOTE

If entire anti-static topcoat is to be reapplied, do step b.

If damaged area is to be repaired by spray touch-up, go to step c.

b. Remove anti-static topcoat per steps below:

WARNING

Methyl isobutyl ketone is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

(1) Lay a clean cheesecloth moistened with methyl isobutyl ketone over entire radome surface. Allow cheesecloth to remain in place for 15 minutes.

(2) Remove cheesecloth, and before surface dries, scrub with clean cheesecloth moistened with methyl isobutyl ketone.

(3) Continue scrubbing surface with cheesecloth moistened with methyl isobutyl ketone until entire anti-static coating is removed.

(4) Allow radome surface to air dry 24 hours.

c. Lightly scuff sand damaged area using 240 grit or finer abrasive paper.

CAUTION

Do not use organic solvents; isopropyl alcohol, methyl isobutyl ketone, or 1,1,1-trichloroethane on radome mold line surfaces. Solvents can cause the anti-static coating to blister.

d. Clean repair area with soap and water. Use clean cheesecloth to wipe surface dry.

e. Allow repair area to air dry 10 to 15 minutes.

WARNING

Refinishing materials : anti-static tiecoat and anti-static topcoat are flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

f. Prepare a suitable amount fluoroelastomer anti-static tiecoat per manufacturer's instructions.

g. Spray apply one coat of tiecoat to repair area to a total dry film thickness of 0.0005 to 0.0020 inch.

h. Allow tiecoat to air dry 30 to 60 minutes.

i. Prepare a suitable amount of fluoroelastomer anti-static topcoat per manufacturer's instructions.

j. Spray apply two coats of topcoat to repair area to a total dry film thickness of 0.001 to 0.002 inch.

NOTE

Preferred cure is step k, alternate cure is step l.

k. Allow repair area to air cure 7 days at 70° to 75°F and 45 % relative humidity.

l. Allow repair area to air cure for 24 hours at 70° to 100°F followed by 3 hours at 150° using 250 watt infrared heat source.

18. **Class IV Repair.** Repair applies to damage which extends into the polyurethane rain erosion coating. Repair requires spray touch-up.

a. Verify that damage qualifies for class IV repair.

b. Lightly scuff sand damaged area using 240 grit or finer abrasive paper.



Do not use organic solvents; isopropyl alcohol, methyl isobutyl ketone, or 1,1,1-trichloroethane on radome mold line surfaces. Solvents can cause the anti-static coating to blister.

c. Clean damaged area with soap and water. Use clean cheesecloth to wipe surface dry.

d. Allow area to air dry for 10 to 15 minutes.

e. Mask off surfaces adjacent to damaged area using untreated kraft paper and pressure sensitive tape.

WARNING

Refinishing materials : primer, rain erosion coating, anti-static tiecoat, and anti-static topcoat are flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

f. Prepare a suitable amount of catalyzed MIL-P-23377 Type 2, Class 1 primer. For primer preparation (WP011 00).

g. Spray apply one coat of primer to repair area to a total dry film thickness of 0.001 to 0.002 inch.

h. Allow primer to air cure a minimum of 2 hours and not more than 8 hours.

i. Prepare a suitable amount of polyurethane rain erosion coating per manufacturer's instructions.

j. Spray apply rain erosion coating in multiple coats to damaged area. Allow 10 to 20 minutes cure between coats. Apply coating to dry film thickness of 0.0085 to 0.0100 inch up to Y121.900, then taper to zero thickness at Y126.900.

k. Allow to air cure for 30 minutes to 4 hours before applying tiecoat.

l. Prepare a suitable amount of anti-static tiecoat per manufacturer's instructions.

m. Spray apply one coat to repair area to a total dry film thickness of 0.0005 to 0.0020 inch.

n. Allow tiecoat to air cure 30 to 60 minutes.

o. Prepare a suitable amount of anti-static topcoat per manufacturer's instructions.

p. Spray apply two coats of topcoat to repair area to a total dry film thickness of 0.001 to 0.002 inch.

NOTE

Preferred cure is step q, alternate cure is step r.

q. Allow repair area to air cure 7 days at 70° to 75° F and 45 % relative humidity.

r. Allow repair area to air cure for 24 hours at 70° to 100° F followed by 3 hours at 150° F using 250 watt infrared heat source.

s. Remove masking material from radome.

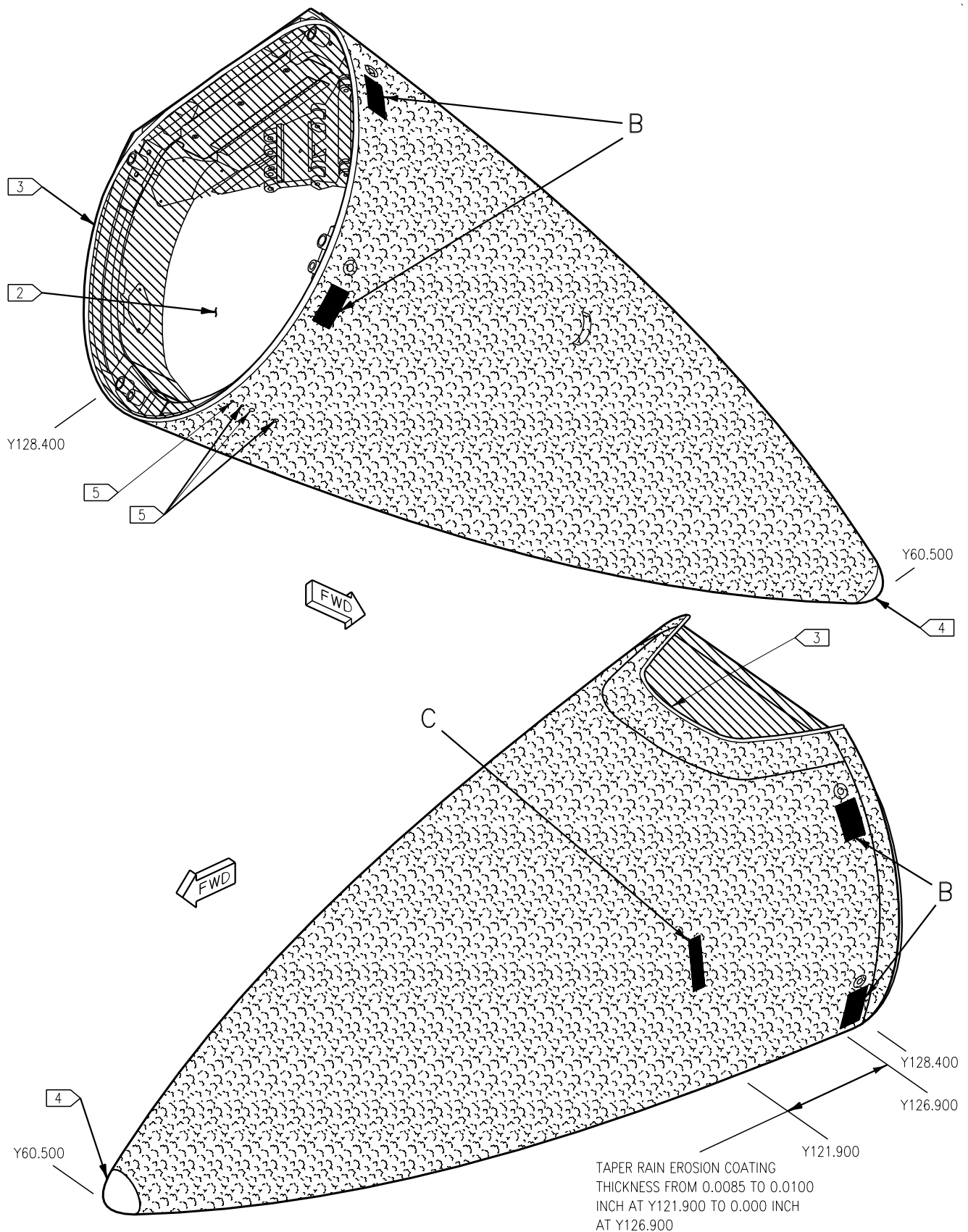


Figure 1. Finish System and Markings (Sheet 1)

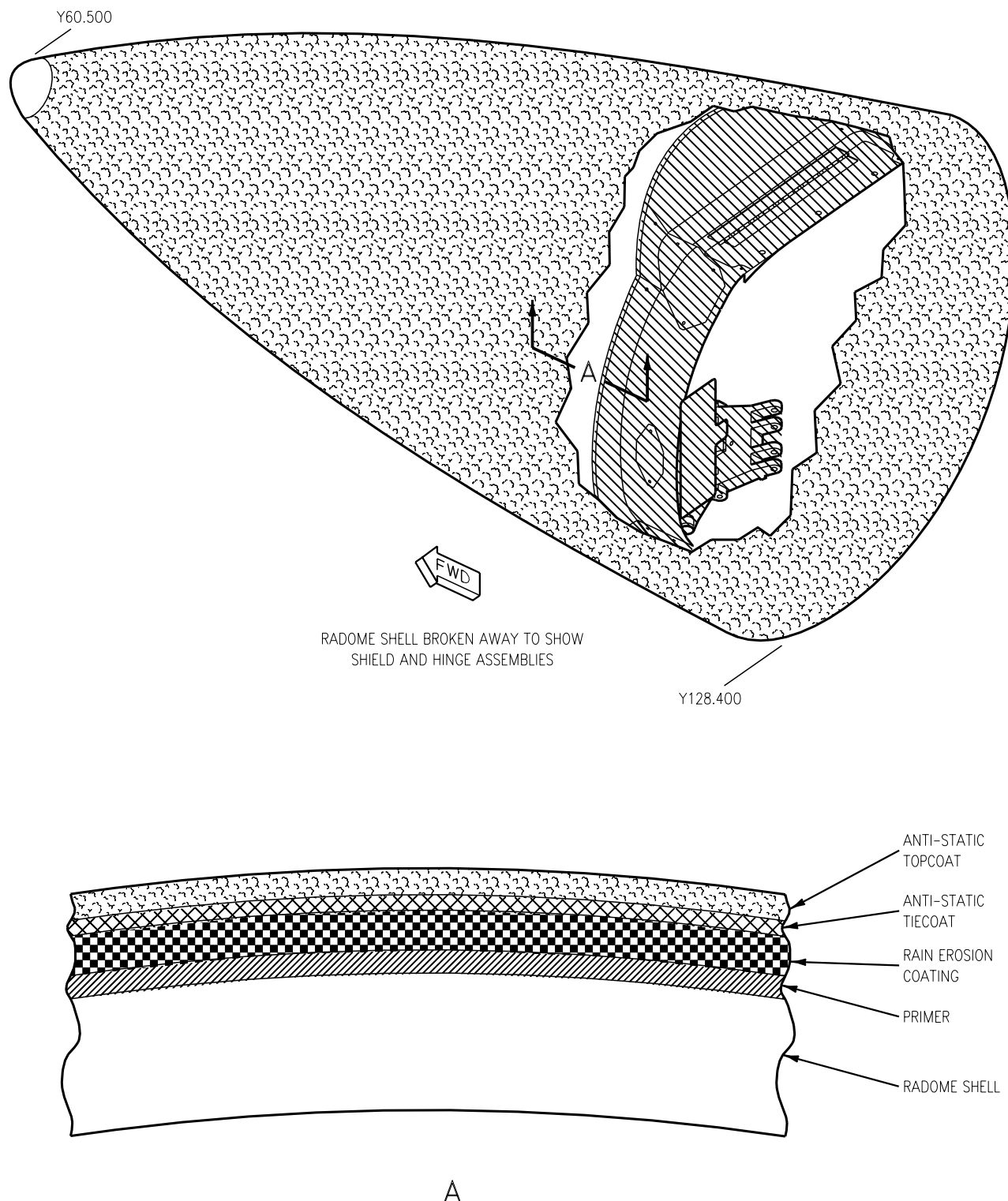
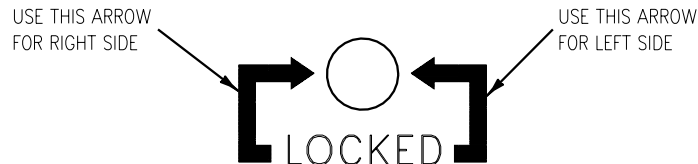
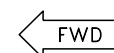


Figure 1. Finish System and Markings (Sheet 2)



B

1 74A950361-2005



1

C

1 74A950001

LEGEND



AMS3138/6, GRAY,FED-STD-595 COLOR NO. 36375
FLUOROELASTOMER ANTI-STATIC TOPCOAT.



AMS3138/3, GRAY,FED-STD-595 COLOR NO. 16375
FLUOROELASTOMER ANTI-STATIC TIECOAT.



MIL-C-83445A, GRAY,FED-STD-595 COLOR NO. 16375
POLYURETHANE RAIN EROSION COATING.



MIL-P-23377, TYPE 2, CLASS 1
PRIMER.



WHITE,FED-STD-595 COLOR NO. 17925
ALIPHATIC POLYURETHANE ENAMEL.

1

SILK SCREEN APPLIED, GRAY,FED-STD-595
COLOR NO. 36320 COMMERCIAL ENAMEL.

2

DO NOT PAINT INNER SURFACE OF RADOME SHELL.

3

DO NOT PAINT ENVIRONMENTAL SEAL.

4

DO NOT PAINT NOSE CAP.

5

MAKE SURE DRAIN HOLES ARE FREE OF
ALL OBSTRUCTIONS.

Figure 1. Finish System and Markings (Sheet 3)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

RADOME FINISH SYSTEM AND MARKINGS

PART NO. 74A311048-1007, -1009, OR -1011

Reference Material

| | |
|--|----------------------|
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application | WP011 00 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Cleaning..... | WP006 00 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Structure Repair, Forward Fuselage | A1-F18AE-SRM-650 |
| Radome Shell..... | WP003 00 |
| Aircraft/Armament Monitor and Control | AE-199AG-580-000/(C) |
| Elastomeric Coating..... | WP003 00 |

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Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|--------------------|------|--|-----------------|---------|
| F/A-18 IAFC 139 | — | Nose Radome, Redesign of (ECP MDA-F/A-18-00409) | 15 Feb 91 | — |

1. DESCRIPTION.

2. The nose radome is a fiberglass roving assembly fabricated from filament glass roving saturated with resin and cured to a strong aerodynamic shell. The radome is an electromagnetically transparent unit. The thickness and dielectric constant must be carefully controlled. The nose radome structure is aluminum alloy and alclad. The forward section of radome has a bonded erosion resistant boot. On 74A311048-1009 and -1011 radomes, a coating of tin/zinc is arc spray applied to inside and outside mold line surfaces. On 74A311048-1007 radomes, 3.00 inch wide aluminum tape is applied to inside mold line surface and E-Kote is applied to outside mold line surfaces.

3. FINISH SYSTEM. See figure 1.



Use of materials other than those specified will degrade radar performance.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

MIL-P-23377 TY1
MIL-P-85582,
TY1CL1 or CL2
MIL-C-83286

Primer
Primer
Aliphatic Polyurethane
Enamel

Materials Required (Continued)

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

| | |
|------------------|----------------------|
| MIL-C-85285, TY1 | Coating, |
| | Polyurethane, |
| | High Solids |
| 822X443 | Rain Erosion Coating |
| | (Base) |
| 910X363 | Rain Erosion Coating |
| | (Curing Solution) |

4. Outside Mold Line Surfaces.



Fiberglass area of radome, forward of tin/zinc or E-kote coating, must only have trace and rain erosion coating applied.

a. On 74A311048-1009 and -1011 radomes, tin/zinc is arc spray applied to radome shell. See figure 2 for location. MIL-P-23377, TY1, CL1 primer, trace coat, and rain erosion coating is applied over tin/zinc. For repair of tin/zinc coating, see paragraph 9, this WP.

b. On 74A311048-1007 radomes, E-Kote is applied to radome shell. See figure 3 for location. MIL-P-23377, TY1, CL1 primer, trace coat, and rain erosion coating is applied over E-Kote. For repair of E-Kote coating, see paragraph 9, this WP.

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

CAUTION

Trace coat and two top coats shall have a total finish thickness of 1.8 to 2.6 mils. Thickness outside this tolerance will degrade radar performance.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. One, 0.5 mil thick trace coat, black, FED-STD-595 color no. 17038, aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

WARNING

822X443/910X363 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

Prepare rain erosion coating per manufacturer's instructions.

d. Two coats, 0.7 to 1.0 mil thick each, gray, FED-STD-595 color no. 36375, rain erosion coating.

5. Inside Mold Line Surfaces.

a. On 74A311048-1009 and -1011 radomes, tin/zinc is arc spray applied to radome shell. See figure 2 for location. MIL-P-23377, TY1, CL1 primer and polyurethane enamel is applied over tin/zinc. For repair of tin/zinc coating, see paragraph 9, this WP.

b. On 74A311048-1007 radomes, 3.00 inch wide aluminum tape is applied to radome shell. See figure 4 for location. MIL-P-23377, TY1, CL1 primer and polyurethane enamel is applied over

tape. Fillet seal is applied to forward and aft edge of tape using MIL-S-83430 sealing compound. Damage to aluminum tape is repaired using E-Kote coating. See paragraph 9, this WP.

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

Maintain electromagnetic protection capability (AE-199AG-580-000/(C), WP003 00).

c. One coat MIL-P-23377, Type 1, Class 1 primer. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

d. Two coats, white, FED-STD-595 color no. 17925, aliphatic polyurethane enamel. For polyurethane preparation and application (WP012 00).

6. OUTSIDE MOLD LINE FINISH SYSTEM
TOUCHUP.

Support Equipment Required

None

Materials Required

| Specification or Part Number | Nomenclature |
|---------------------------------|-----------------|
| AA1048TY1CL1 | Cloth, Abrasive |
| GRIT240X9X11 | |
| GRIT320X9X11 | |

NOTE

On 74A311048-1009 and -1011 radomes, tin/zinc is arc spray applied to radome shell. See figure 2 for location.

On 74A311048-1007 radomes, E-Kote is applied to radome shell. See figure 3 for location.

a. Lightly sand the damaged area and feather-edge sand the periphery of the damaged coating.

b. Remove sanding dust by solvent cleaning (WP006 00).

c. Repair any damage that exists to tin/zinc or E-Kote coating on radomes. See paragraph 9, this WP.

NOTE

Avoid excessive paint film buildup, primarily in the overlap area. Film thickness exceeding 2.6 mils will degrade radar performance.

d. Spot-in the damaged area taking care to overlap the original finish. Refer to paragraph 4, this WP, for materials, color, and thickness of coating.

7. OUTSIDE MOLD LINE FINISH SYSTEM
REFINISHING.

Support Equipment Required

| Part Number or Type Designation | Nomenclature |
|------------------------------------|------------------|
| — | Vibrating Sander |

Materials Required

| Specification or Part Number | Nomenclature |
|---------------------------------|------------------|
| 421 | Tape, Insulation |
| LP378TY1CL1GRB | Plastic Sheet |
| FNSH1-0-0045X50X96 | |
| CCC-C-440 TYPE 1 | Cheesecloth |
| CLASS 1 | |
| A-A-1047 GRIT | Paper, Abrasive |
| 180-9X11 | |
| 240-9X11 | |

NOTE

On 74A311048-1009 and -1011 radomes, tin/zinc is arc spray applied to radome shell. See figure 2 for location.

On 74A311048-1007 radomes, E-Kote is applied to radome shell. See figure 3 for location.

a. Mask the radome boot approximately 1/16 inch past aft edge using plastic sheet and tape.

b. Mask the radome aft opening with plastic sheet and tape.



Use care when sanding, remove as little of the trace coat as possible to avoid sanding into base material.

c. Carefully remove finish system by sanding with a vibrating sander until the trace coat is exposed. Wet sanding is allowed for this procedure. Use 180 grit followed by 240 grit abrasive paper. The finish, aft of the forward ring of rivets on the aft edge of the radome does not require removal.

However, sanding is required for correct paint adhesion.



Do not attempt to remove all the finish at aft edge of boot. Damage to boot may result.

d. Unmask the boot.

e. Carefully feather-edge sand the remaining ring of paint at aft edge of boot.



Do not use solvents on bare fiberglass for cleanup, damage may result.

f. Remove sanding dust by wiping with clean cheesecloth moistened with clean water and allow surface to dry.

g. Mask the radome boot using plastic sheet and tape.

h. Repair any damage that exists to tin/zinc or E-Kote coating on radomes. See paragraph 9, this WP.

NOTE

Complete trace coat may be applied if extensive bare fiberglass is visible. Apply no more than 0.2 to 0.4 mils.

i. Spot-in area of bare fiberglass with trace coat. Refer to paragraph 4, this WP, for applicable material, color, and thickness of trace coat.

NOTE

Allow 30 to 60 minutes dry time between first and second coat.

j. Apply rain erosion coating. Refer to paragraph 4, this WP, for applicable material, color, and thickness of coating.

8. **MARKINGS.** The radome markings are silk screen applied using commercial gray enamel, see figure 1 for color diagram.

9. REPAIR OF TIN/ZINC, E-KOTE, OR ALUMINUM TAPE.

10. On 74A311048-1009 and -1011 radomes, tin/zinc is arc spray applied to inside and outside mold line surfaces. On 74A311048-1007 radomes, 3.00 inch wide aluminum tape is applied to inside mold line surface and E-Kote is applied to outside mold line surface. See figure 5.

Support Equipment Required

None

Materials Required

| Specification or Part Number | Nomenclature | |
|--|---|---|
| A-A-1047 GRIT 180-9X11 240-9X11 822X443 | Paper, Abrasive | ■ |
| 910X363 | Rain Erosion Coating (Base) | |
| | Rain Erosion Coating (Curing Solution) | |
| MIL-P-23377 TY1 3073 | Primer | ■ |
| | E-Kote, Coating, Conductive | |
| H-B-695, TYPE 1, GRADE A, Size 1-1/2 | Brush, Varnish | |
| TT-I-735, GRADE B | Isopropyl Alcohol | ■ |
| MIL-C-83286 | Aliphatic Polyurethane Enamel | ■ |
| MIL-S-83430 CLA-1/2 | Sealing Compound | ■ |
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth | ■ |

11. **DAMAGE EVALUATION.** Damage is classified as negligible and repairable. Damage not listed or exceeding limits below requires depot engineering disposition.

12. **NEGLECTIBLE DAMAGE.** Negligible damage is damage that may be allowed to exist as is. Type and limits are cuts, pits, scratches, erosion, or abrasions that extend into the topcoat and primer but does not penetrate the tin/zinc, E-Kote, or aluminum tape.

13. **REPAIRABLE DAMAGE.** Repairable damage is damage that can be permanently repaired with no adverse affect on radome performance.

14. **Class I Damage.** This class of damage applies to damage which may extend through topcoat, primer and partially into the tin/zinc, E-Kote, or aluminum tape. For repair of damage, refer to paragraph 18, this WP.

15. **Class II Damage.** This class of damage applies to damage which may extend through the tin/zinc, E-Kote, or aluminum tape providing no damage exists to underlying radome shell. For repair of damage, refer to paragraph 19, this WP.

16. Damage to Tin/Zinc, E-Kote, or Aluminum Tape and Underlying Radome Shell.

a. Remove tin/zinc or E-Kote coating from damaged area as required using 180 grit abrasive paper. If damage is in an area where aluminum tape is installed, trim tape from damaged area as required.

b. Evaluate and repair structural damage to 74A311048 radome shell (A1-F18AE-SRM-650, WP003 00).

c. Apply class II damage repair, paragraph 19, this WP.

17. **REPAIRS.** See figure 5.

18. Class I Repair.

a. Verify that damage qualifies for class I repair.

WARNING

Isopropyl alcohol is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

b. Clean damaged area with cheesecloth moistened with isopropyl alcohol.

NOTE

If damage is located on outside mold line surface, do step c.

If damage is located on inside mold line surface, do step d.

c. Damage located on outside mold line surface:

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

(1) Brush apply one coat of MIL-P-23377 primer to damaged area. For preparation of primer (WP011 00).

NOTE

Trace coat may be applied if large repair area exists. Apply no more than 0.2 to 0.4 mils.

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(2) Brush apply one coat of MIL-C-83286 polyurethane enamel trace coat to damaged area. Use black, FED-STD-595 color no. 17038. For preparation of polyurethane enamel (WP012 00).

WARNING

822X443/910X363 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

Prepare rain erosion coating per manufacturer's instructions. Allow 30 to 60 minutes dry time between first and second coat.

(3) Brush apply two coats of rain erosion coating to damaged area. Use gray, FED-STD-595 color no. 36375 to a total finish thickness of 1.8 to 2.6 mils.

(4) Allow repair to air cure 24 hours.

d. Damage located on inside mold line surface:

(1) Brush apply one coat of MIL-P-23377 primer to damaged area. For preparation of primer (WP011 00).

(2) Brush apply two coats of polyurethane enamel to damaged area. Use white, FED-STD-595 color no. 17925. For preparation of polyurethane enamel (WP012 00).

(3) Allow repair area to air cure 24 hours.

19. Class II Repair.

a. If damage is to aluminum tape located on inside mold line surface of 74A311048-1007 radome, trim tape from damaged area as required and continue with step b.

b. Lightly scuff sand damaged area using 240 grit or finer abrasive paper.

WARNING

Isopropyl alcohol is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas

c. Clean damaged area with cheesecloth moistened with isopropyl alcohol.

WARNING

E-Kote is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

d. Prepare a suitable amount of E-Kote per mixing instructions on container.

e. Brush apply E-Kote to damaged area.

f. Allow E-Kote to air dry for 20 minutes. Cure for 1 hour at 190 degrees F using hot air gun.

NOTE

If damage is located on outside mold line surface, do step g.

If damage is located on inside mold line surface, do step h.

g. Damage located on outside mold line surface:

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

(1) Brush apply one coat of MIL-P-23377 primer to damaged area. For preparation of primer (WP011 00).

NOTE

Trace coat may be applied if large repair area exists. Apply no more than 0.2 to 0.4 mils.

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

(2) Brush apply one coat of MIL-C-83286 polyurethane enamel trace coat to damaged area. Use black, FED-STD-595 color no. 17038. For preparation of polyurethane enamel (WP012 00).

WARNING

822X443/910X363 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

Prepare rain erosion coating per manufacturer's instructions. Allow 30 to 60 minutes dry time between first and second coat.

(3) Brush apply two coats of rain erosion coating to damaged area. Use gray, FED-STD-595 color no. 36375 to a total finish thickness of 1.8 to 2.6 mils.

(4) Allow repair to air cure 24 hours.

h. Damage located on inside mold line surface:

(1) If damage is to aluminum tape, apply fillet seal using MIL-S-83430 sealing compound to edge of tape surrounding repair area and continue with substep (2). For sealant preparation and application (A1-F18AC-SRM-200, WP011 00).

(2) Brush apply one coat of MIL-P-23377 primer to damaged area. For preparation of primer (WP011 00).

(3) Brush apply two coats of polyurethane enamel to damaged area. Use white, FED-STD-595 color no. 17925. For preparation of polyurethane enamel (WP012 00).

(4) Allow repair area to air cure 24 hours.

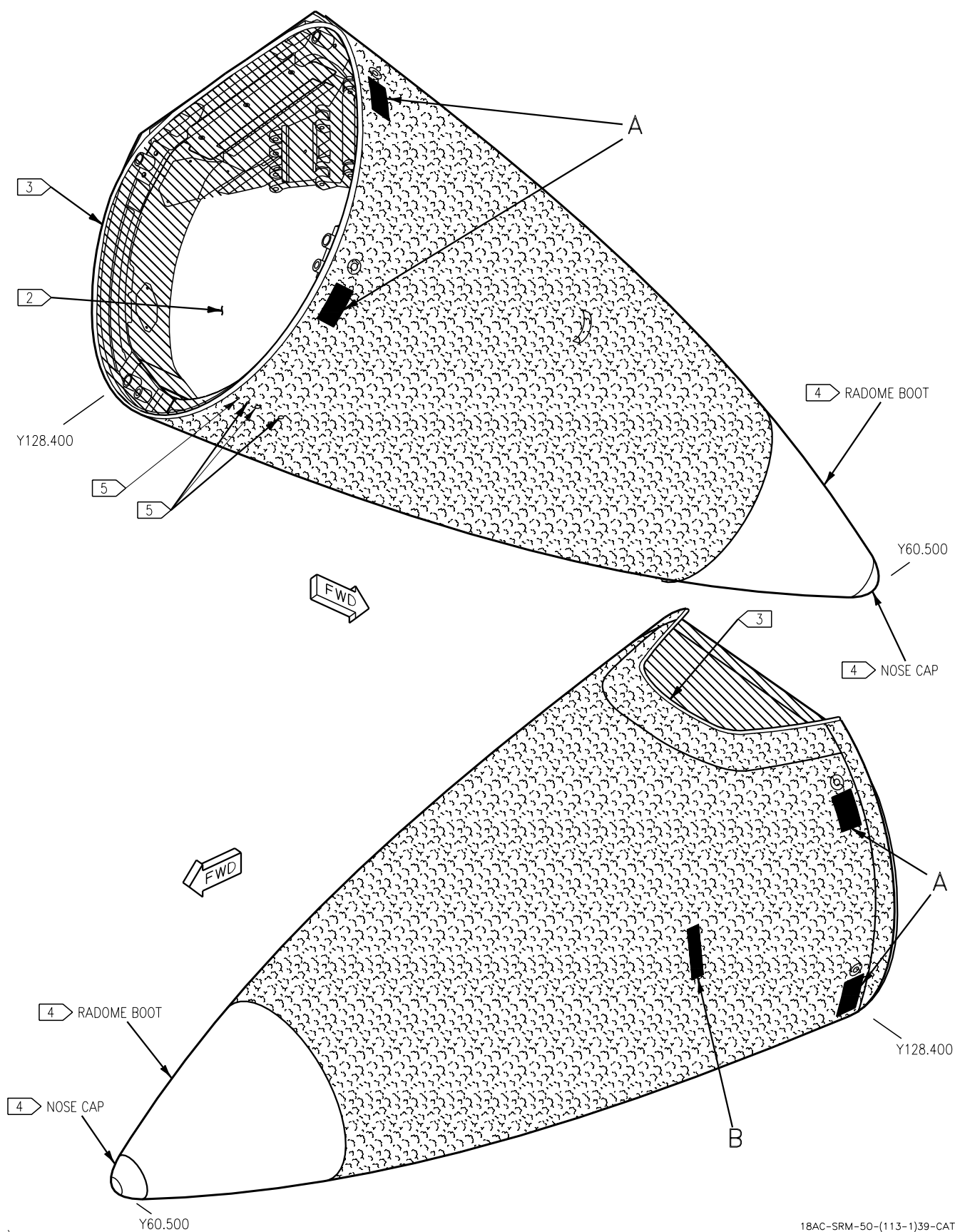


Figure 1. Finish System and Markings (Sheet 1)

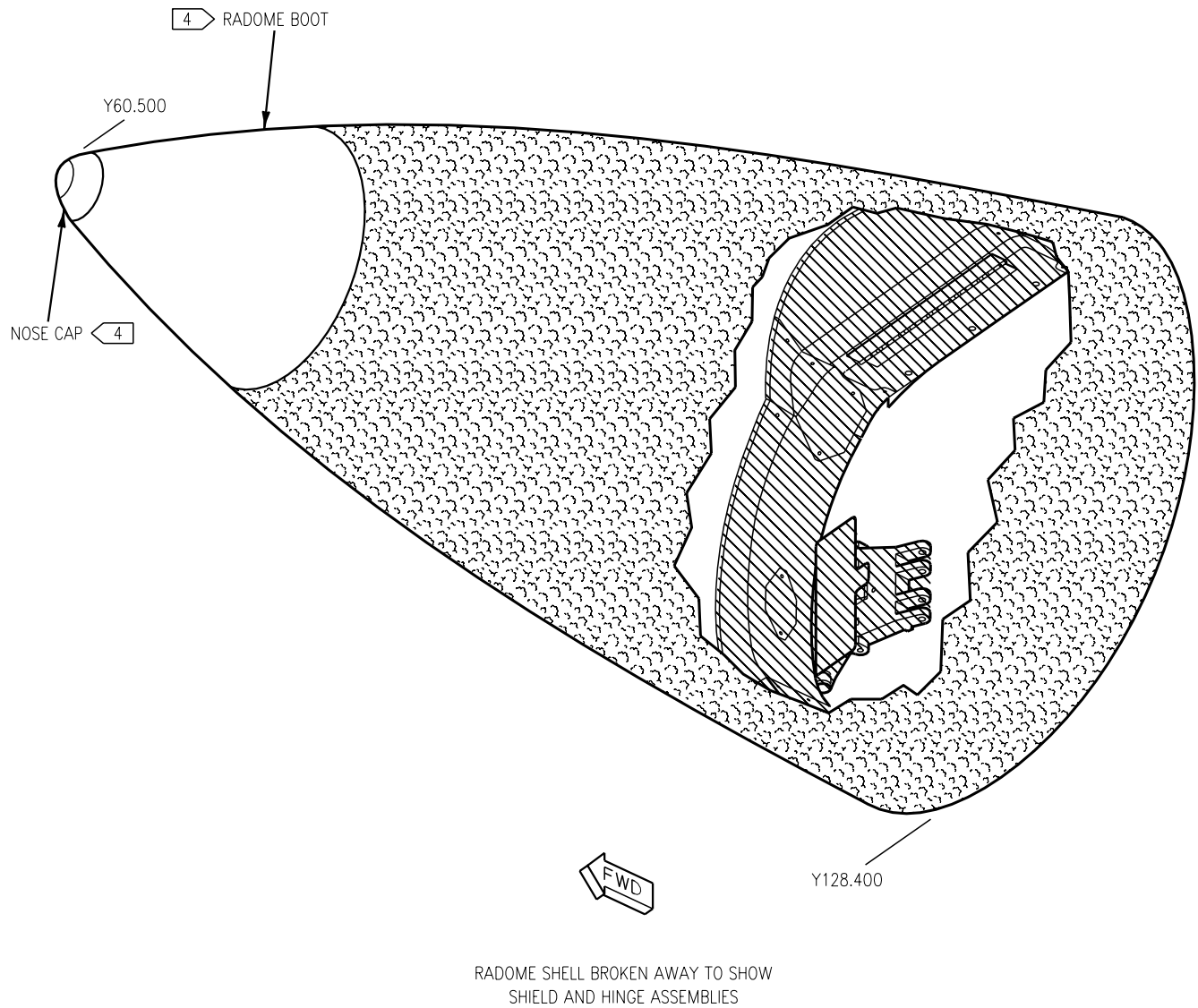
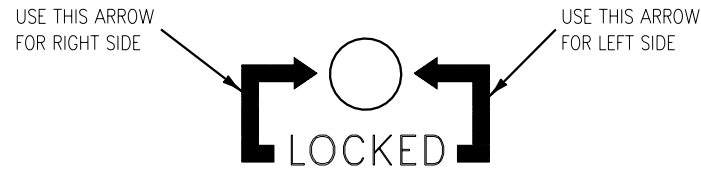
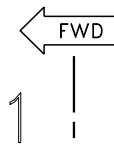


Figure 1. Finish System and Markings (Sheet 2)



A

1 74A950361-2005



B

1 74A950001

LEGEND



GRAY, FED-STD-595 COLOR NO. 36375
RADOME AND RAIN EROSION COATING.



WHITE, FED-STD-595 COLOR NO. 17925
ALIPHATIC POLYURETHANE ENAMEL.

1 SILK SCREEN APPLIED, GRAY, FED-STD-595 COLOR NO. 36320 COMMERCIAL ENAMEL.

2 DO NOT PAINT INNER SURFACE OF RADOME SHELL.

3 DO NOT PAINT ENVIRONMENTAL SEAL.

4 DO NOT PAINT NOSE CAP AND RADOME BOOT.

5 MAKE SURE DRAIN HOLES ARE FREE OF ALL OBSTRUCTIONS.

Figure 1. Finish System and Markings (Sheet 3)

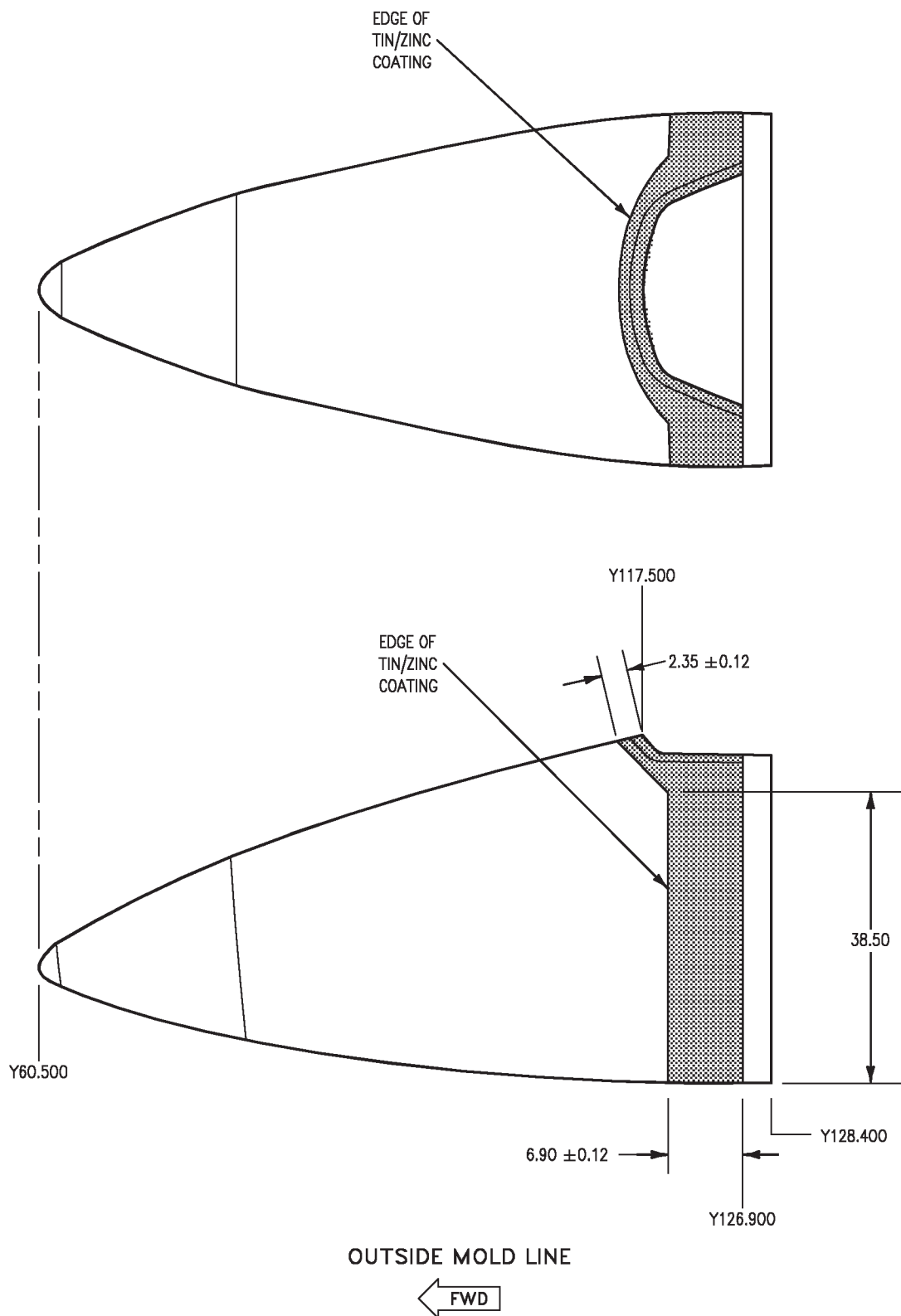


Figure 2. Location of Tin/Zinc Coating on 74A311048-1009 and -1011 Radomes
(Sheet 1)

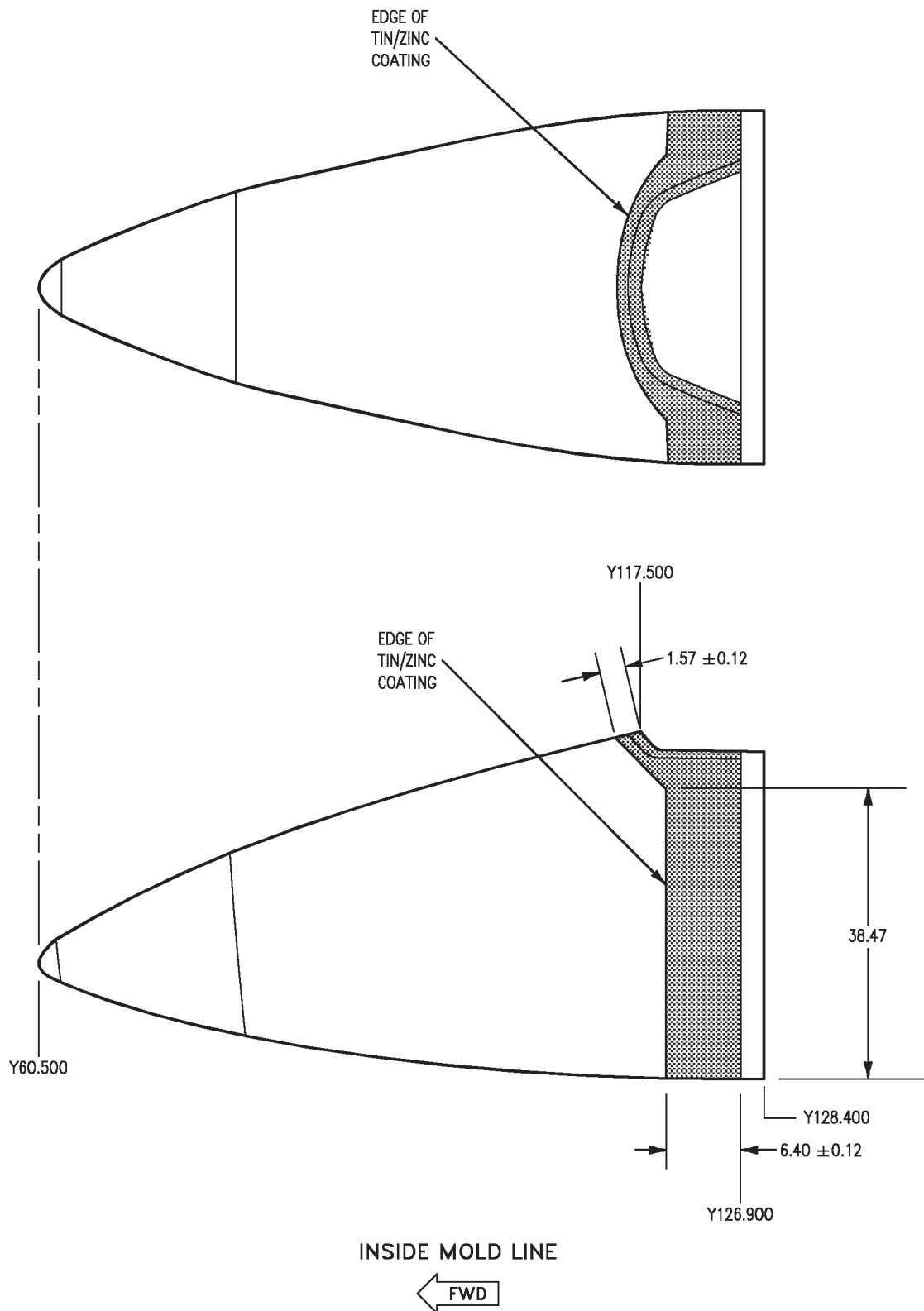


Figure 2. Location of Tin/Zinc Coating on 74A311048-1009 and -1011 Radomes
(Sheet 2)

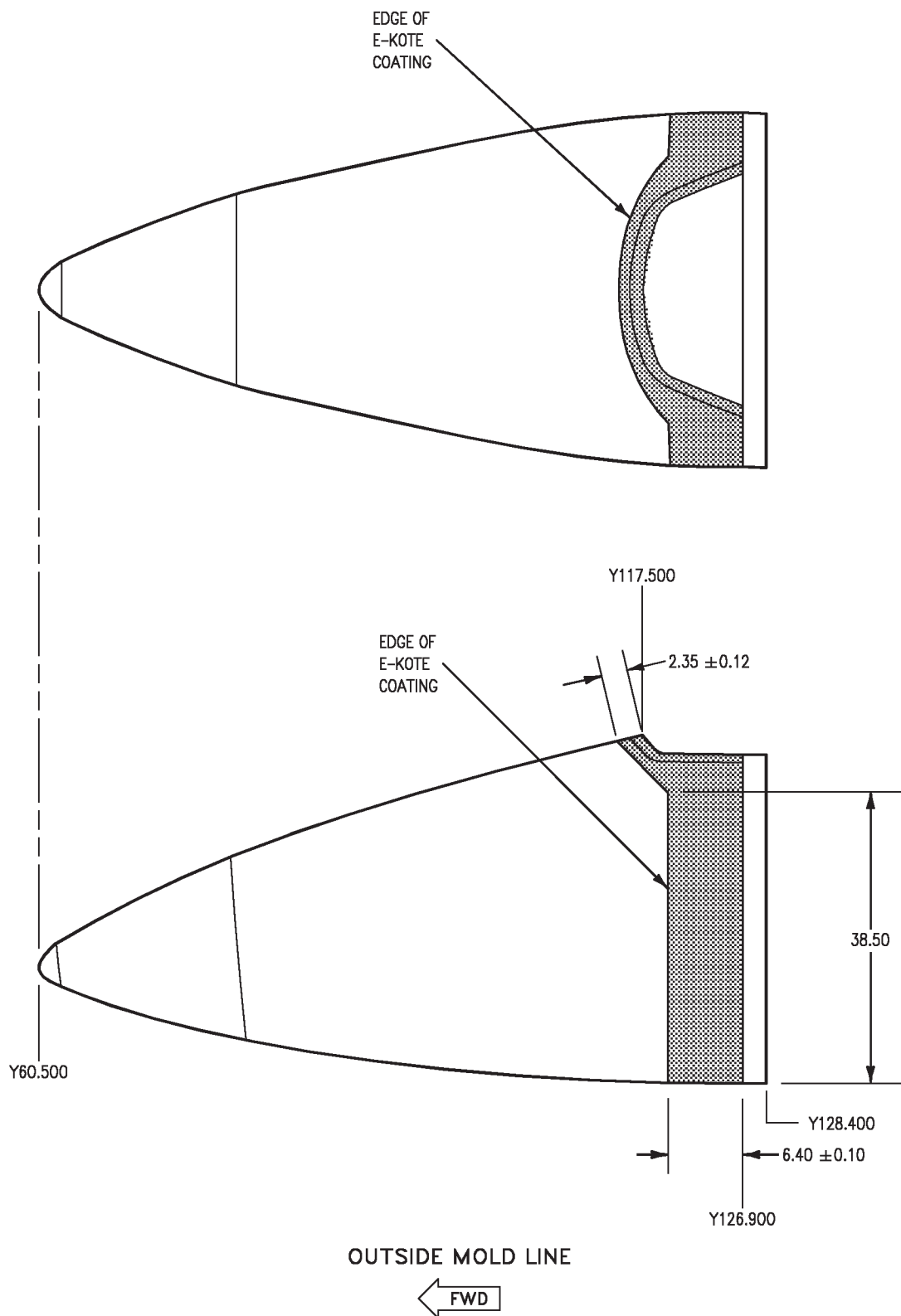


Figure 3. Location of E-Kote Coating on 74A311048-1007 Radomes

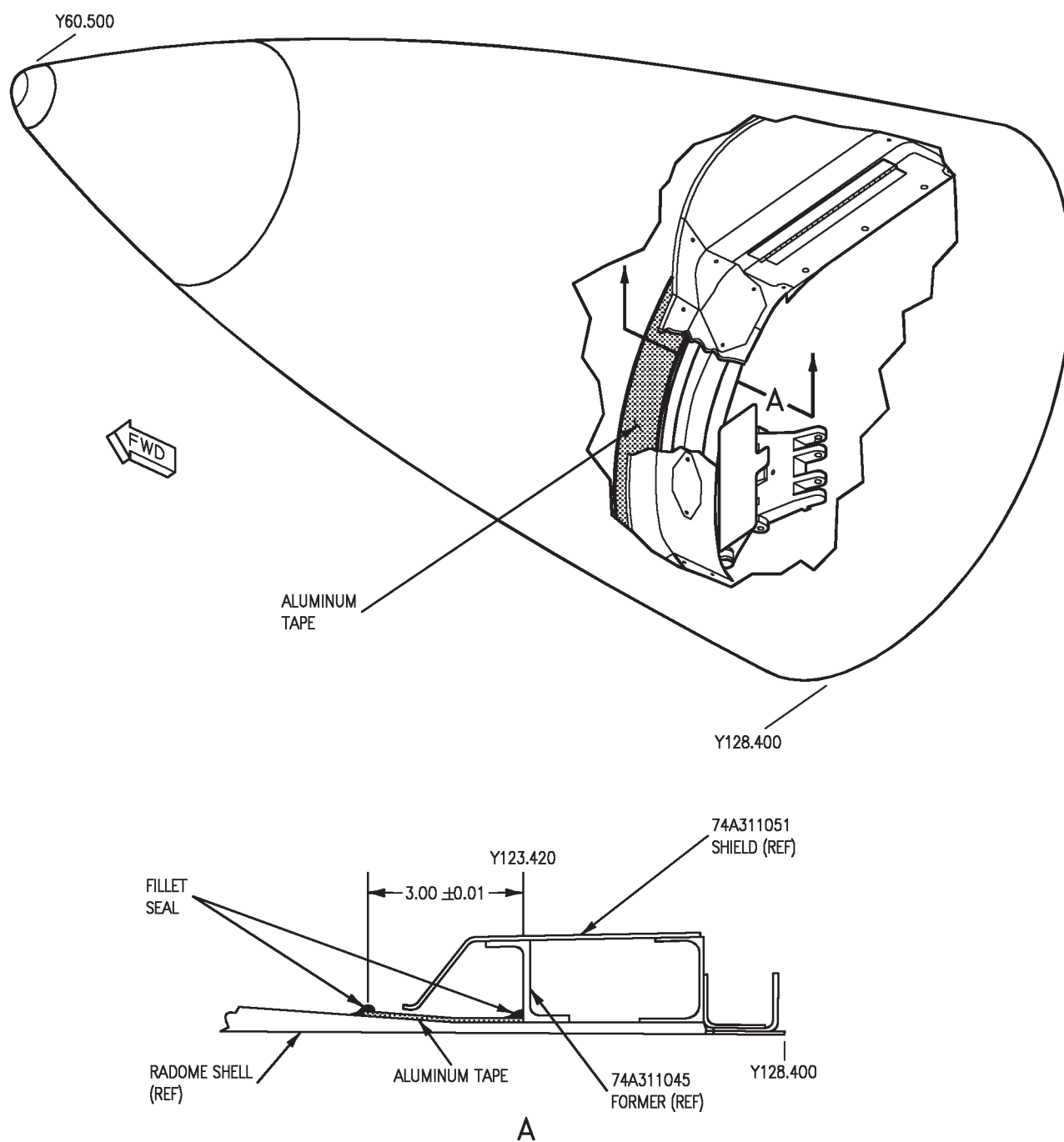
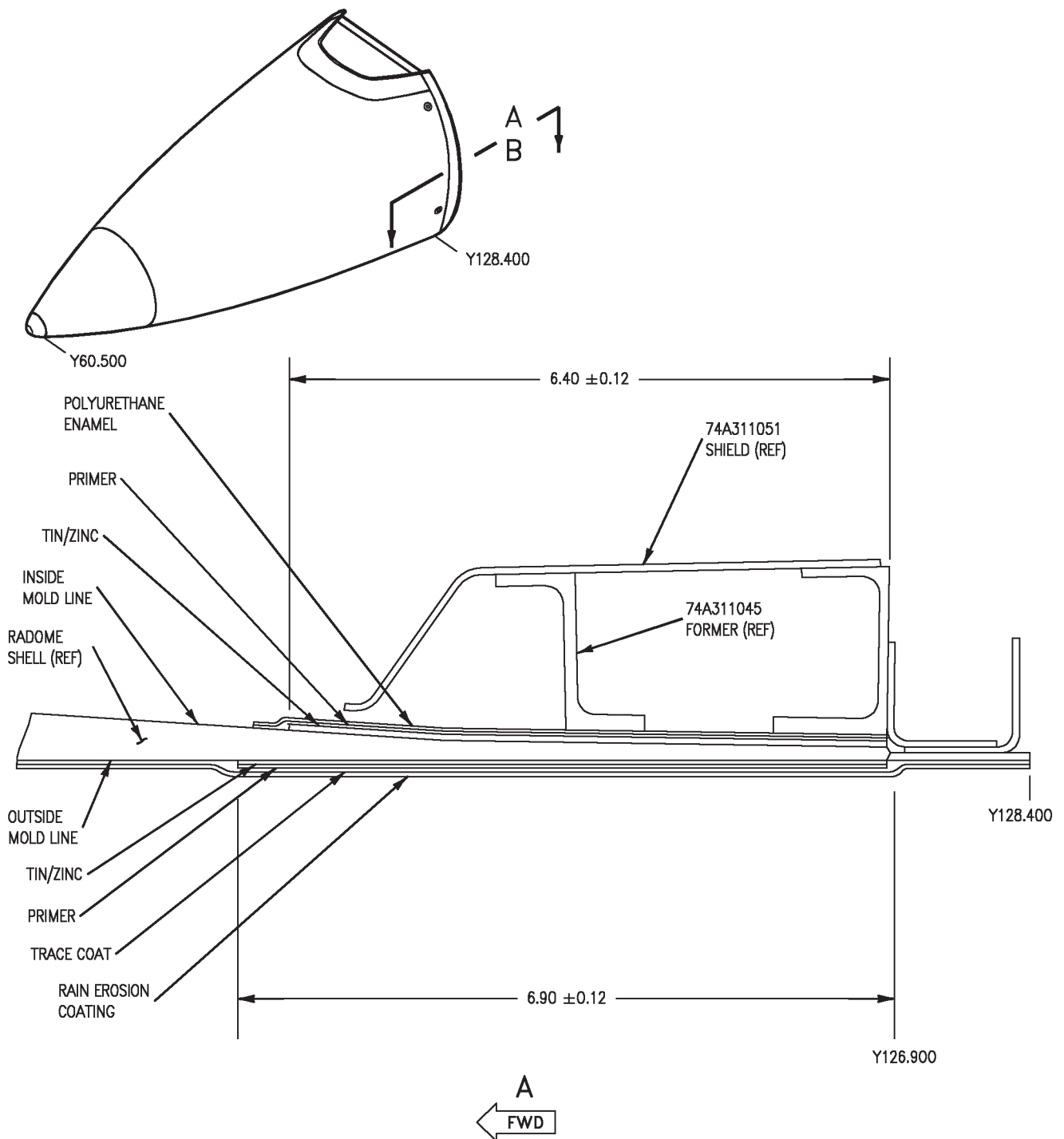


Figure 4. Location of Aluminum Tape on 74A311048-1007 Radomes



74A311048-1009,-1011

Figure 5. Repair of Tin/Zinc, E-Kote, or Aluminum Tape (Sheet 1)

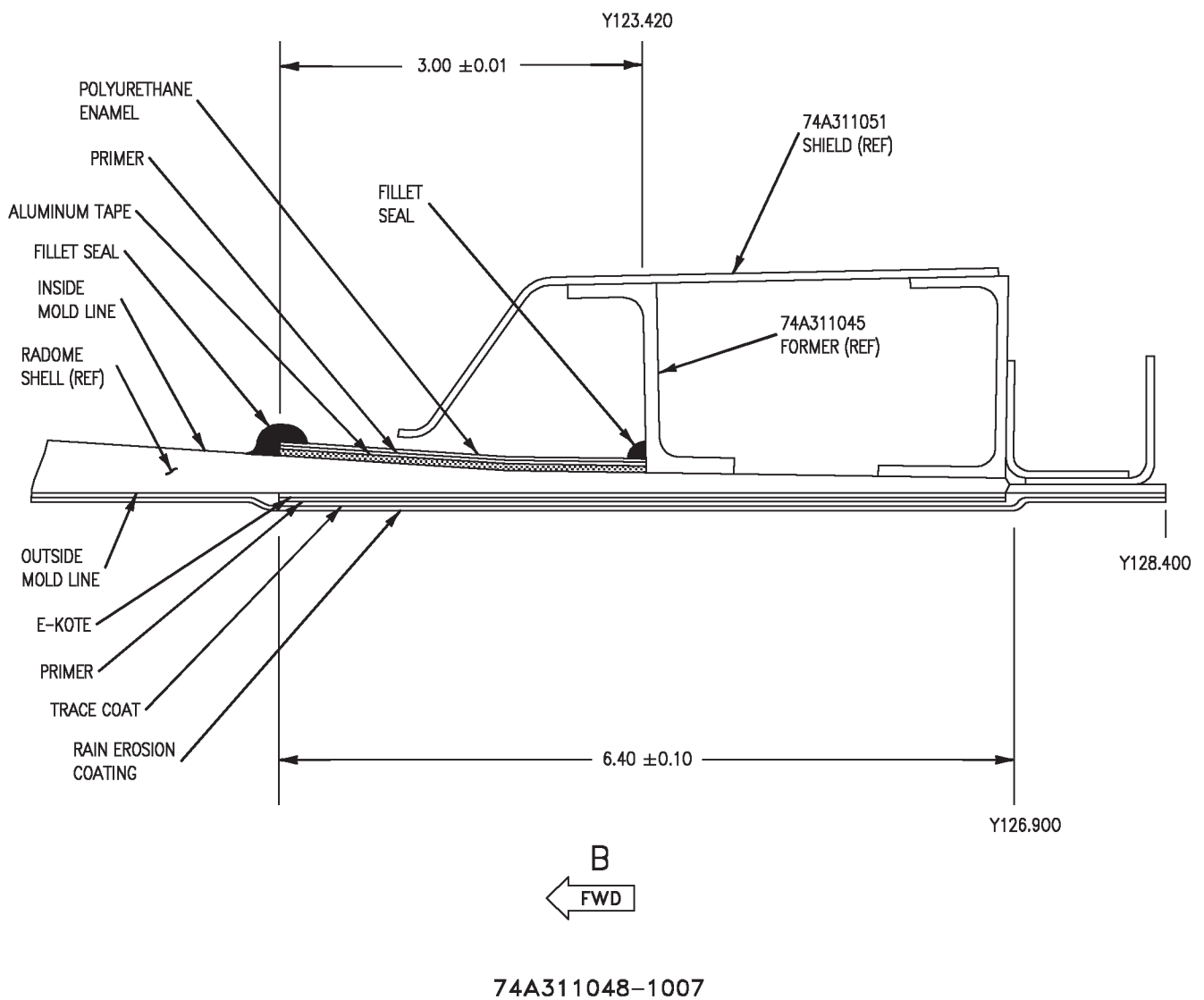


Figure 5. Repair of Tin/Zinc, E-Kote, or Aluminum Tape (Sheet 2)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

NOSE BARREL CORROSION PRONE AREAS

Reference Material

| | |
|--|------------------|
| Structure Repair, Forward Fuselage | A1-F18AC-SRM-220 |
| Structure Group Index | WP001 01 |
| Aircraft Corrosion Control | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning | WP006 00 |
| Stripping | WP007 00 |
| Chemical Treatment | WP008 00 |
| Nose Barrel Finish System and Markings | WP018 00 |
| Structure Repair, Forward Fuselage | A1-F18AE-SRM-650 |
| Structure Group Index | WP001 01 |

Alphabetical Index

| Subject | Page No. |
|--|----------|
| Description | 2 |
| Chemical Treatment | 3 |
| Classification of Critical Items/Areas | 3 |
| Cleaning | 3 |
| Corrosion Damage Evaluation and Limits | 3 |
| Corrosion Damage Repair | 3 |
| Corrosion Inspection | 2 |
| Corrosion Prone Areas | 2 |
| Corrosion Removal | 3 |
| Finish System and Markings | 3 |
| Gun Bay Door | 2 |
| Inflight Refueling Probe (IFR) and Trough/Well | 2 |
| Nose Barrel Skins, Doors, and Structure | 2 |
| Stripping | 3 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|--------------|---------|
| F/A-18 AFC 161 | — | Additional Drain Holes In Access Door 3 (ECP RAMEC NORIS-25-88) | 1 Dec 92 | — |

1. DESCRIPTION.

2. The nose barrel is that structure and skin aft of the radome and forward of the windshield. Structure and surface material is mostly 7075 aluminum alloy and graphite epoxy. Finish system is primer and polyurethane coatings.

3. CORROSION PRONE AREAS.

- a. Dissimilar metal contact.
- b. Water entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Gun gas residues.
- f. Exposure to corrosive elements.

4. GUN BAY DOOR. See figure 1.

a. The gun bay door is exposed to gun gas residues and possible internal condensation.

b. The gun bay door structure and skins are aluminum alloy joined by wet installed dissimilar metal fasteners using sealant.

c. Dissimilar metal contact may occur with protective system failure allowing stainless steel mesh, retaining strips interface, or louvers to contact.

5. NOSE BARREL SKINS, DOORS, AND STRUCTURE. See figure 2.

a. The nose barrel mold line surfaces and structure are alclad or aluminum alloy.

b. Dissimilar metal interfaces exist between the stainless steel gun blast deflector and the graphite epoxy gun loading door.

c. Dissimilar metal fasteners are wet installed to reduce dissimilar metal corrosion.

d. Damage to the paint system may cause the cladding to corrode where unprotected, this is sacrificial, the damage is cosmetic and not structural.

6. INFLIGHT REFUELING PROBE (IFR) AND TROUGH/WELL. See figure 3.

a. The (IFR) probe is stored in a trough/well on the upper right side of the nose barrel.

b. The trough/well has drain holes and drain tubes which exit on the lower right side of the nose barrel. If drains become clogged, accumulated water may cause corrosion in bottom or lower surfaces of the trough/well.

c. Materials used are; 7075-T73 forgings, 7075-T7351 plate, and 7075-T6 alclad for trough/well; 2024-T8511 extrusion for probe barrel; 7075-T73/T73652 forgings, A356-T6 casting, and 2024-T6 extruded tube in other areas.

d. Dissimilar metal interfaces do exist, but corrosion in this area is caused by damage to the finish system.

7. CORROSION INSPECTION. (WP005 00)

a. Gun bay door.

(1) Door assembly for pitting and galvanic corrosion, suspect areas are formers and interior skin surface.

(2) For poor drainage, look for high water marks, residues, and discoloration of finish system.

(3) Inspect drain holes for obstructions.

(4) Protective system of door sills and (EMI) seal retainers for damage.

(5) (EMI) seals for broken fingers, worn tin plating, or heavy tarnish.

(6) Stainless steel (EMI) screens for corrosion and security.

(7) Bushing areas, pins, and hinges for pitting and galvanic corrosion.

(8) Mold line surfaces near pitot tubes and peripheries of the antennas.

(9) Countersinks of quick release fasteners, when door is off.

b. Nose barrel mold line skins.

(1) Surface for pitting or galvanic corrosion.

(2) Surface for damage to finish system, damage to protection system, or damaged areas exposed to carrier environment.

(3) Mold line surfaces near graphite epoxy gun loader door or near stainless steel gun blast deflector.

(4) Mold line form in place seals for chafing, cuts, gaps, or tears.

(5) (EMI) seals for broken fingers, worn tin plating, or heavy tarnish.

(6) Door sill surfaces which contact (EMI) seal strip for cleanlines and corrosion.

(7) Door latches and brace fittings for pitting or galvanic corrosion.

(8) Internal nose barrel for trapped water or corrosion damage to finish system, or damage to protective system.

c. (IFR) probe and trough/well.

(1) Finish system for damage.

(2) The stainless steel coupling clamp where it attaches the aluminum swivel support, 74A313021 (figure 3, item 4).

(3) The stainless steel clamp where it attaches the aluminum alloy probe barrel, 74A661241 (figure 3, item 2).

(4) Hydraulic lines and clamps for corrosion.

(5) Trough/well drains for obstructions.

(6) Trough/well bottom and sides for pitting corrosion.

8. **CLEANING.** (WP006 00).

9. **STRIPPING.** (WP007 00).

10. **CORROSION REMOVAL.** (WP005 00).

11. **CHEMICAL TREATMENT.** (WP008 00).

12. **FINISH SYSTEM AND MARKINGS.** (WP018 00).

13. **CLASSIFICATION OF CRITICAL ITEMS/AREAS.** (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

14. **CORROSION DAMAGE EVALUATION AND LIMITS.** (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

15. **CORROSION DAMAGE REPAIR.** (WP005 00 and A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

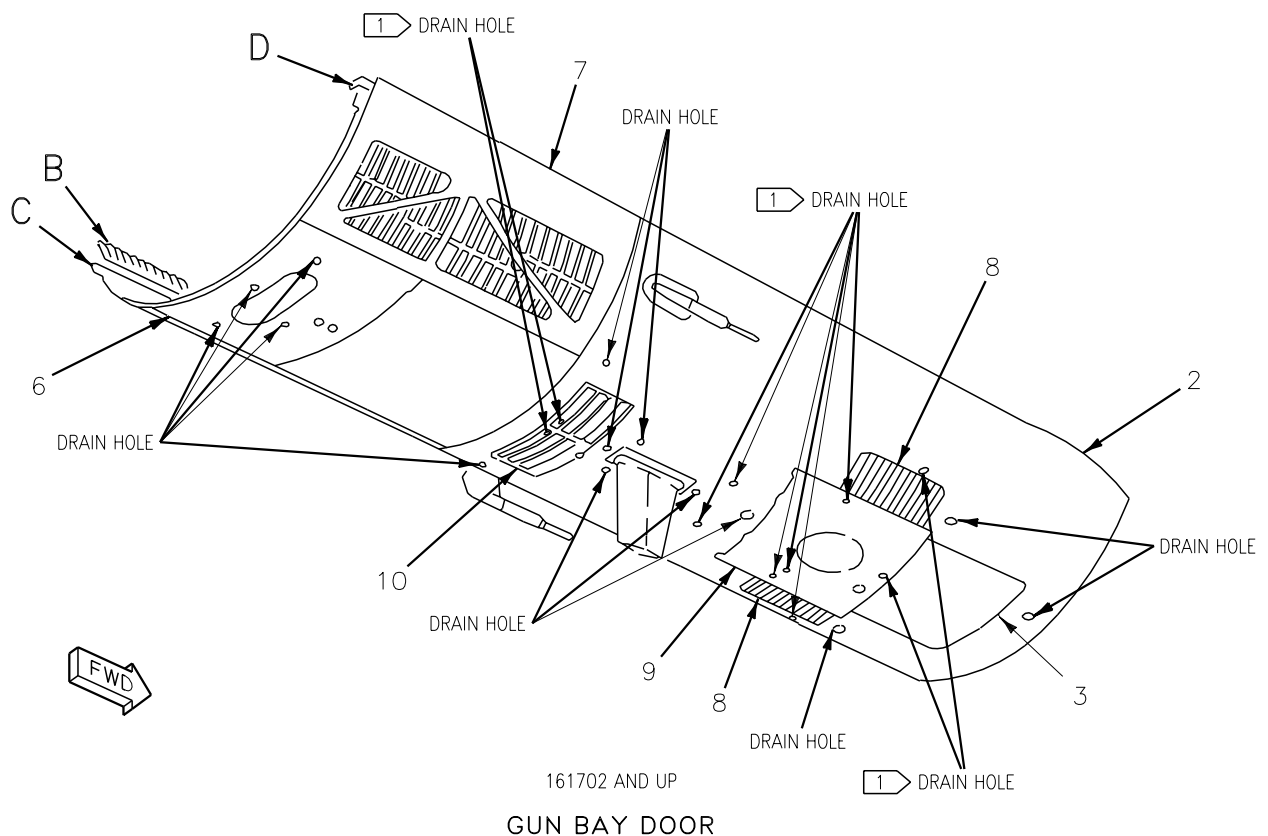
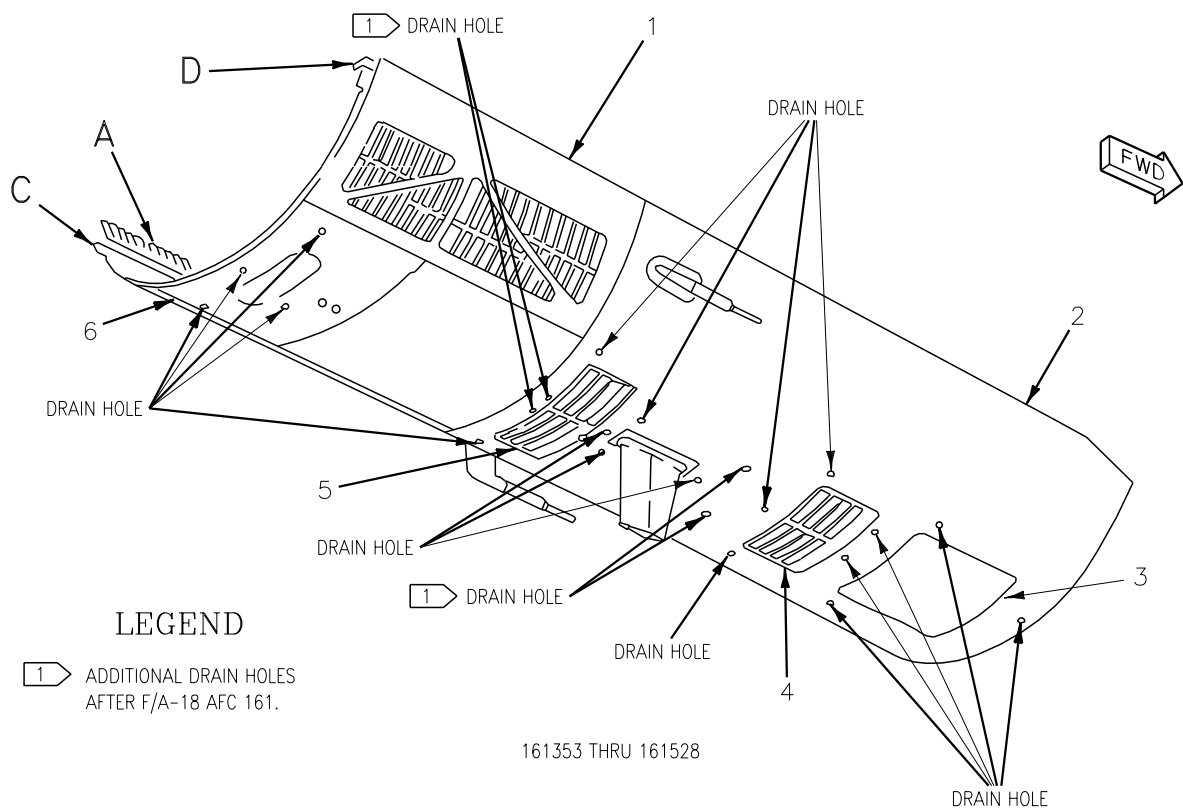
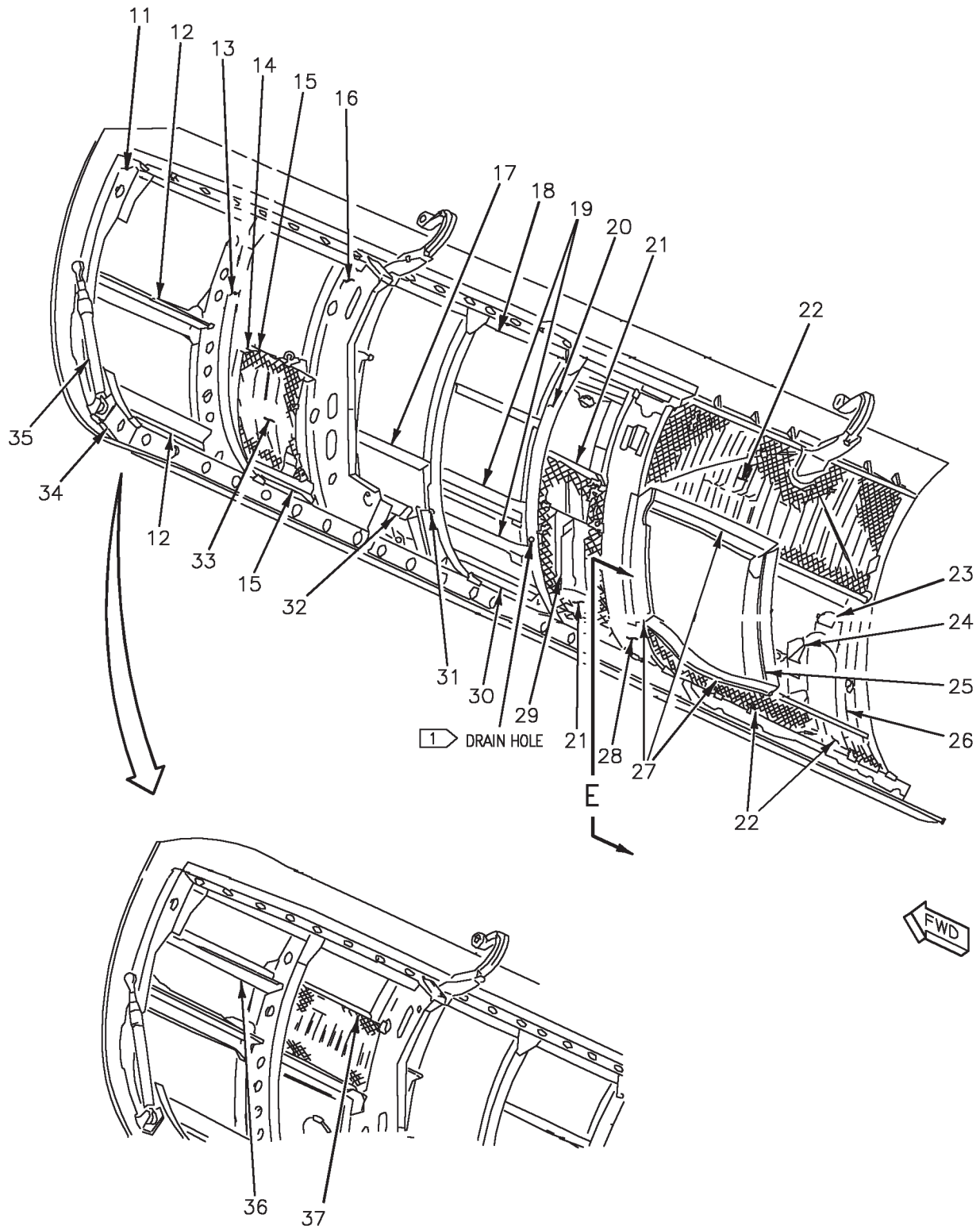


Figure 1. Corrosion Prone Areas (Sheet 1)



GUN BAY DOOR

Figure 1. Corrosion Prone Areas (Sheet 2)

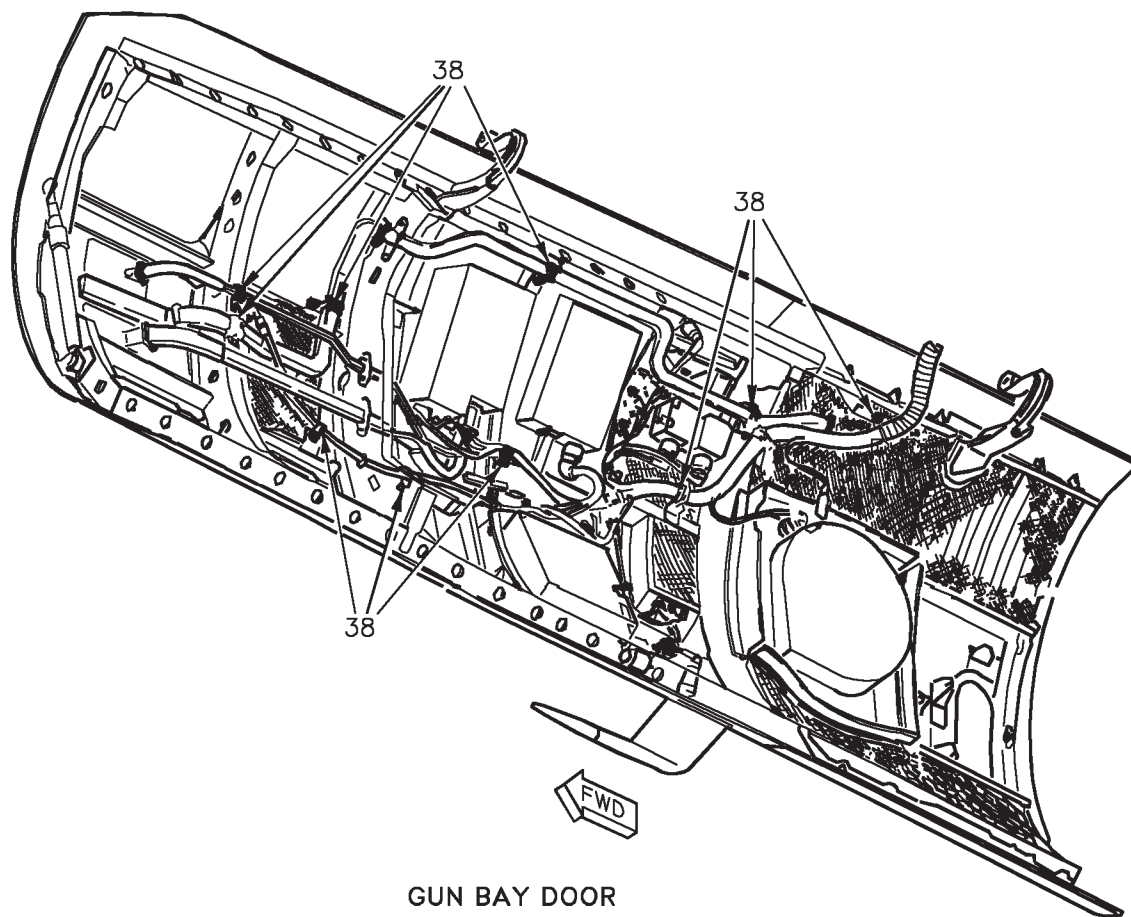


Figure 1. Corrosion Prone Areas (Sheet 3)

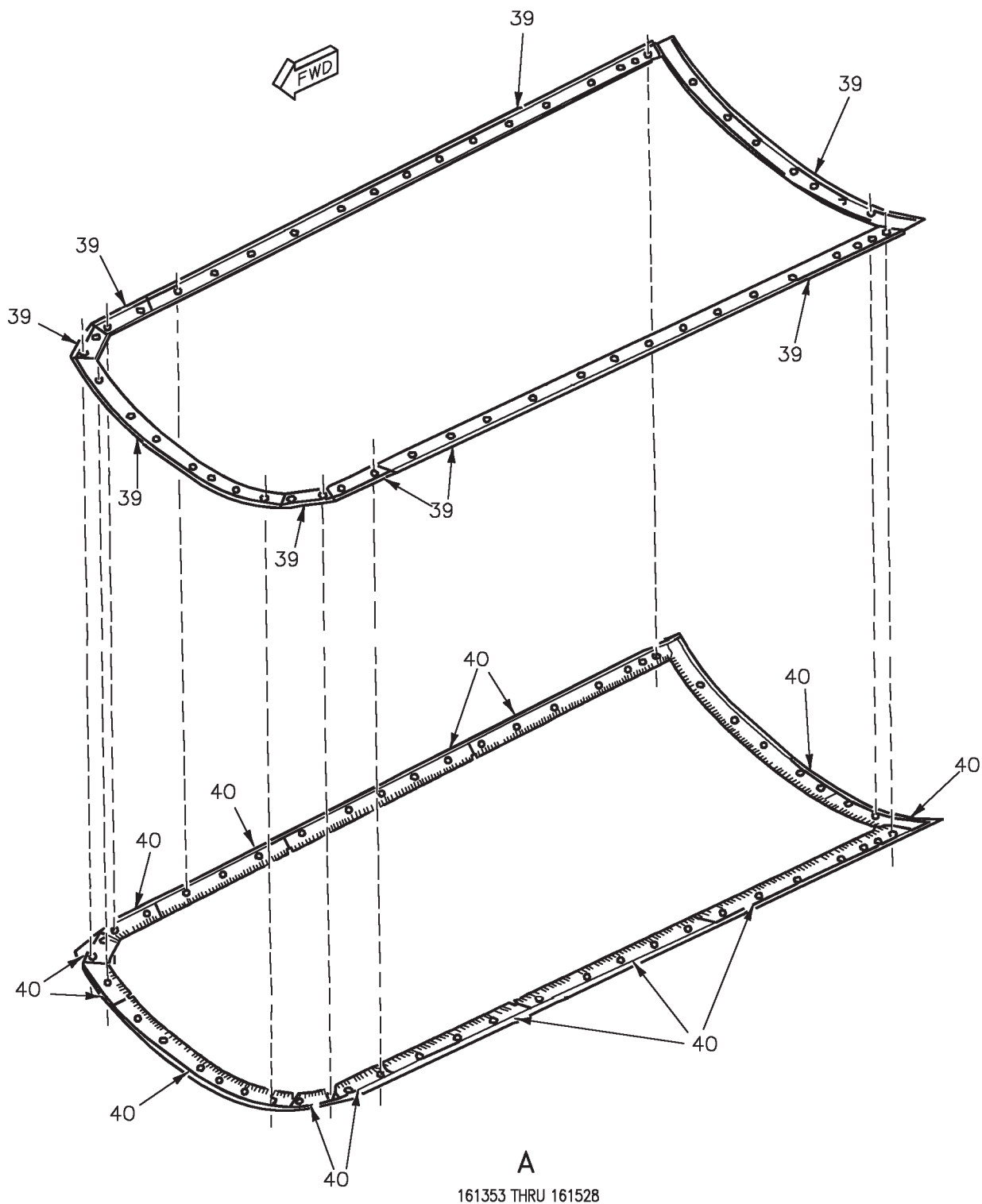


Figure 1. Corrosion Prone Areas (Sheet 4)

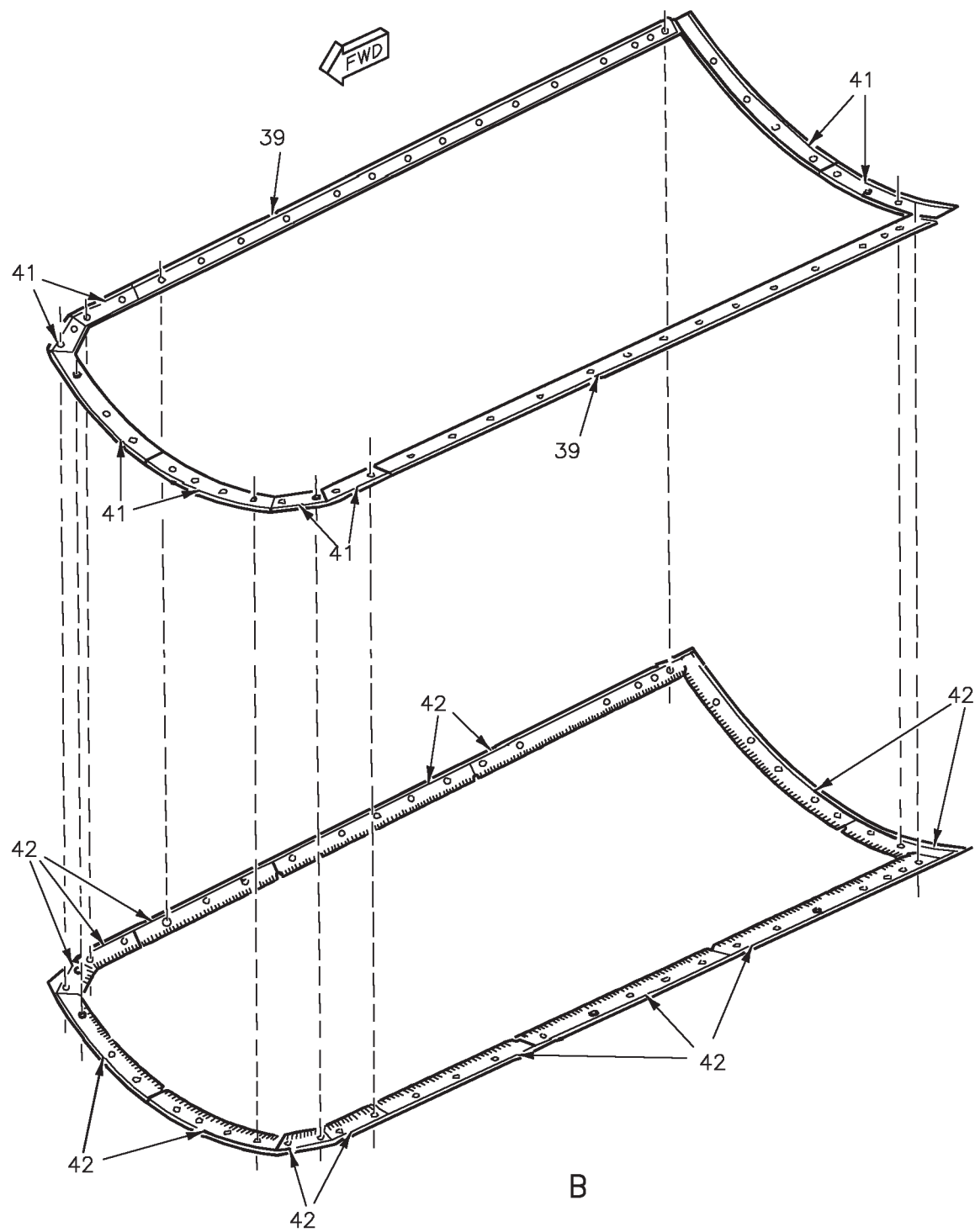


Figure 1. Corrosion Prone Areas (Sheet 5)

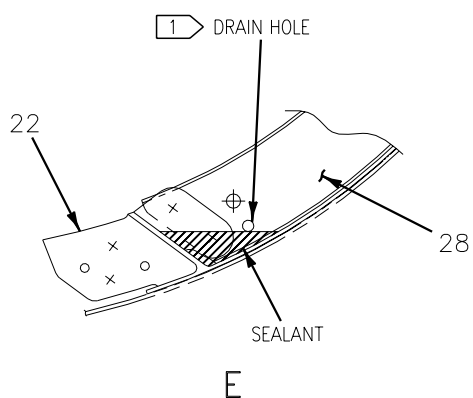
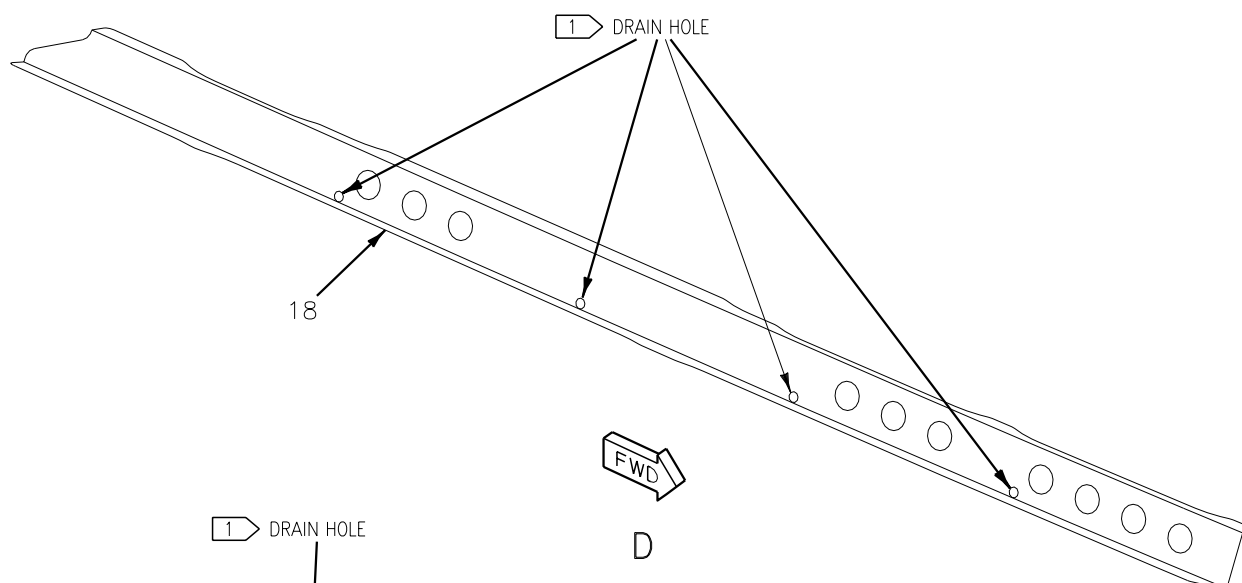
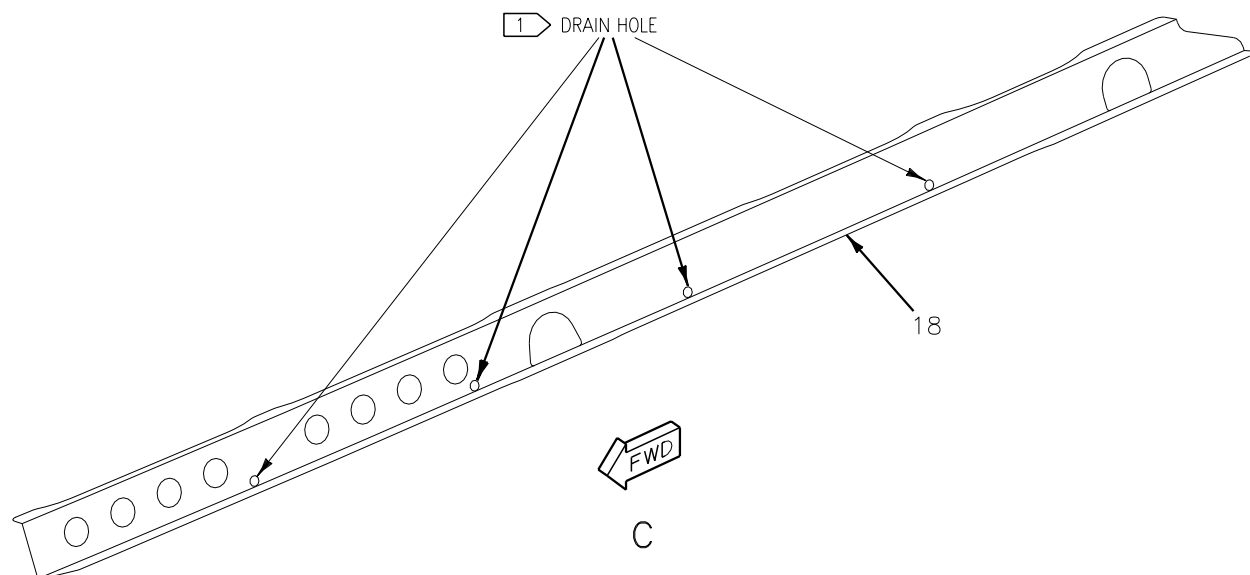


Figure 1. Corrosion Prone Areas (Sheet 6)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|------------------------------|-------------------------------|----------------|
| 1 | Frame, Louver | 7075-T7351 Al Aly, Plate | Pitting |
| 2 | Forward Skin | 7075-T76 Alclad, Sheet | Surface |
| 3 | Base, Antenna | 7075-T7351 Al Aly, Sheet | Surface |
| 4 | Louver | A356-T61 Al Aly, Casting | Pitting |
| 5 | Louver | 7075-T7351 Al Aly, Casting | Pitting |
| 6 | Aft Skin | 7075-T76 Alclad, Sheet | Surface |
| 7 | Louver | A356-T61 Al Aly, Casting | Pitting |
| 8 | Louver | A356-T61 Al Aly, Casting | Pitting |
| 9 | Support | 7075-T73 Al Aly, Pressing | Pitting |
| 10 | Louver | A356-T61 Al Aly, Casting | Pitting |
| 11 | Former, F.S.131.375 | 7075-T73 Al Aly, Extrusion | Pitting |
| 12 | Tee-Support | 7075-T73511 Al Aly, Extrusion | Pitting |
| 13 | Former, F.S.142.250 | 7075-T76 Al Aly, Extrusion | Pitting |
| 14 | Mounting Plate | A356-T61 Al Aly, Casting | Pitting |
| 15 | Sill | 7075-T76511 Al Aly, Extrusion | Pitting |
| 16 | Former, F.S.152.25 to 155.30 | 7075-T6 Alclad, Sheet | Surface |
| 17 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 18 | Sill | 7075-T76 Al Aly, Extrusion | Pitting |
| 19 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 20 | Former, F.S.172.10 | 7075-T76 Al Aly, Extrusion | Pitting |
| 21 | Structural Angle | 7075-T76 Al Aly, Extrusion | Pitting |
| 22 | Louver | 7075-T7651 Al Aly, Casting | Pitting |
| 23 | Guide | 6061-T6 Al Aly, Sheet | Pitting |
| 24 | Support | 7075-T6 Alclad, Sheet | Surface |
| 25 | Former, F.S.192.80 | 7075-T73 Al Aly, Extrusion | Pitting |

Figure 1. Corrosion Prone Areas (Sheet 7)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|---|-----------------|
| 26 | Former | 7075-T6 Alclad, Sheet | Pitting |
| 27 | Support | 7075-T6 Alclad, Sheet | Surface |
| 28 | Former, F.S.179.60 | 7075-T73 Al Aly, Extrusion 7075-T6 Al Aly, Extrusion | Pitting/Surface |
| 29 | Louver | A356-T6 Al Aly, Casting | Pitting |
| 30 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 31 | Former, F.S.163.00 | 7075-T76 Al Aly, Extrusion | Pitting |
| 32 | Support | 7075-T6 Alclad, Sheet | Surface |
| 33 | Louver | A356-T61 Al Aly, Casting | Pitting |
| 34 | Sill | 7075-T76 Al Aly, Extrusion | Pitting |
| 35 | Brace | 7075-T73511 Al Aly, Extrusion | Pitting |
| 36 | Support | 7075-T6 Al Aly, Sheet | Pitting |
| 37 | Support | 7075-T6 Al Aly, Sheet | Pitting |
| 38 | Clamp | Al Aly | Galvanic |
| 39 | Retainer | 6061-T6511 Al Aly, Extrusion | Pitting |
| 40 | Leaf | Tin Plated Beryllium Copper | Tarnish |
| 41 | Retainer | 6061-T6511 Al Aly, Extrusion | Pitting |
| 42 | Leaf | Tin Plated Beryllium Copper | Tarnish |

Figure 1. Corrosion Prone Areas (Sheet 8)

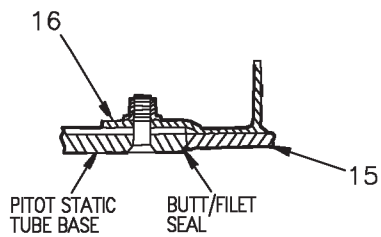
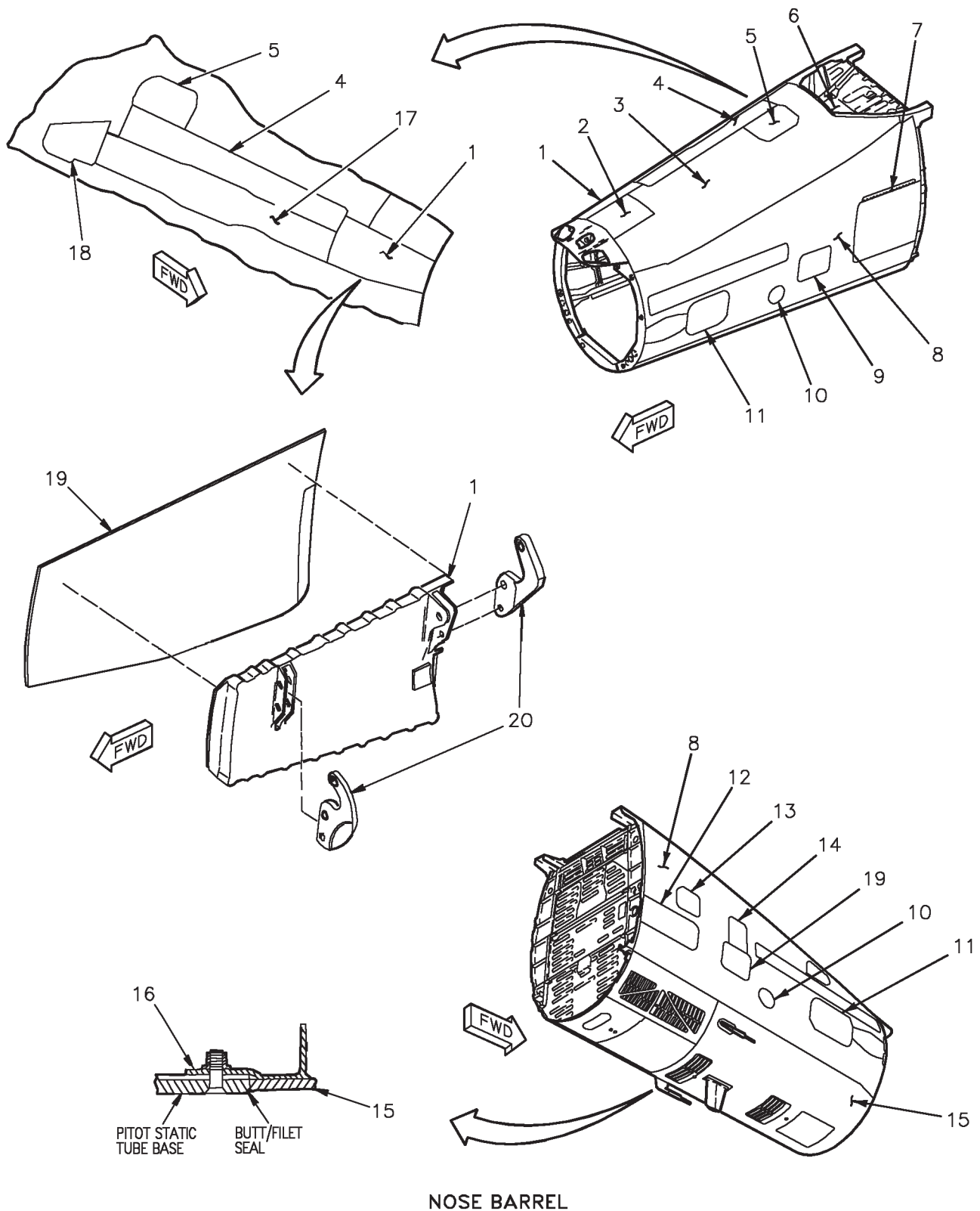


Figure 2. Corrosion Prone Areas (Sheet 1)

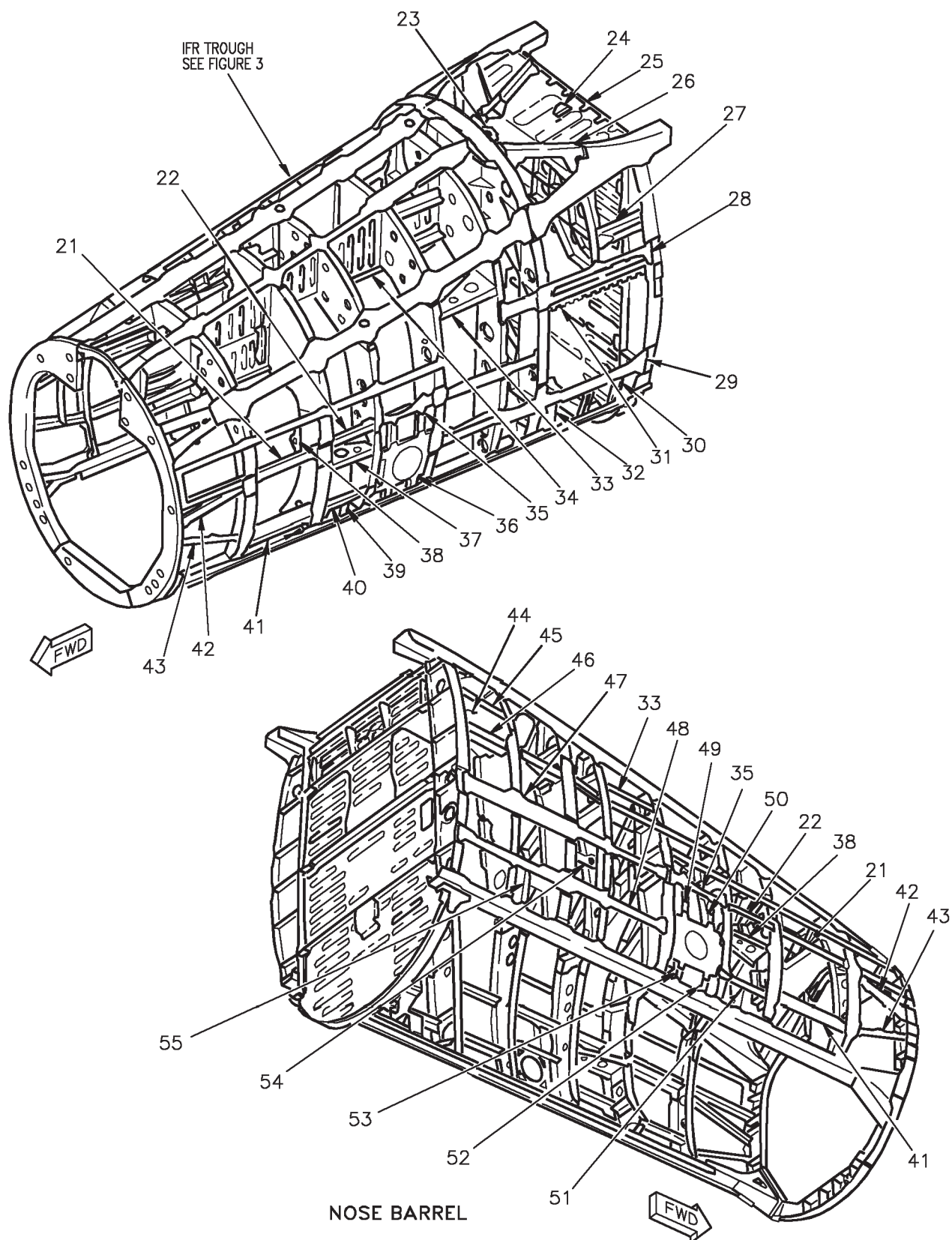


Figure 2. Corrosion Prone Areas (Sheet 2)

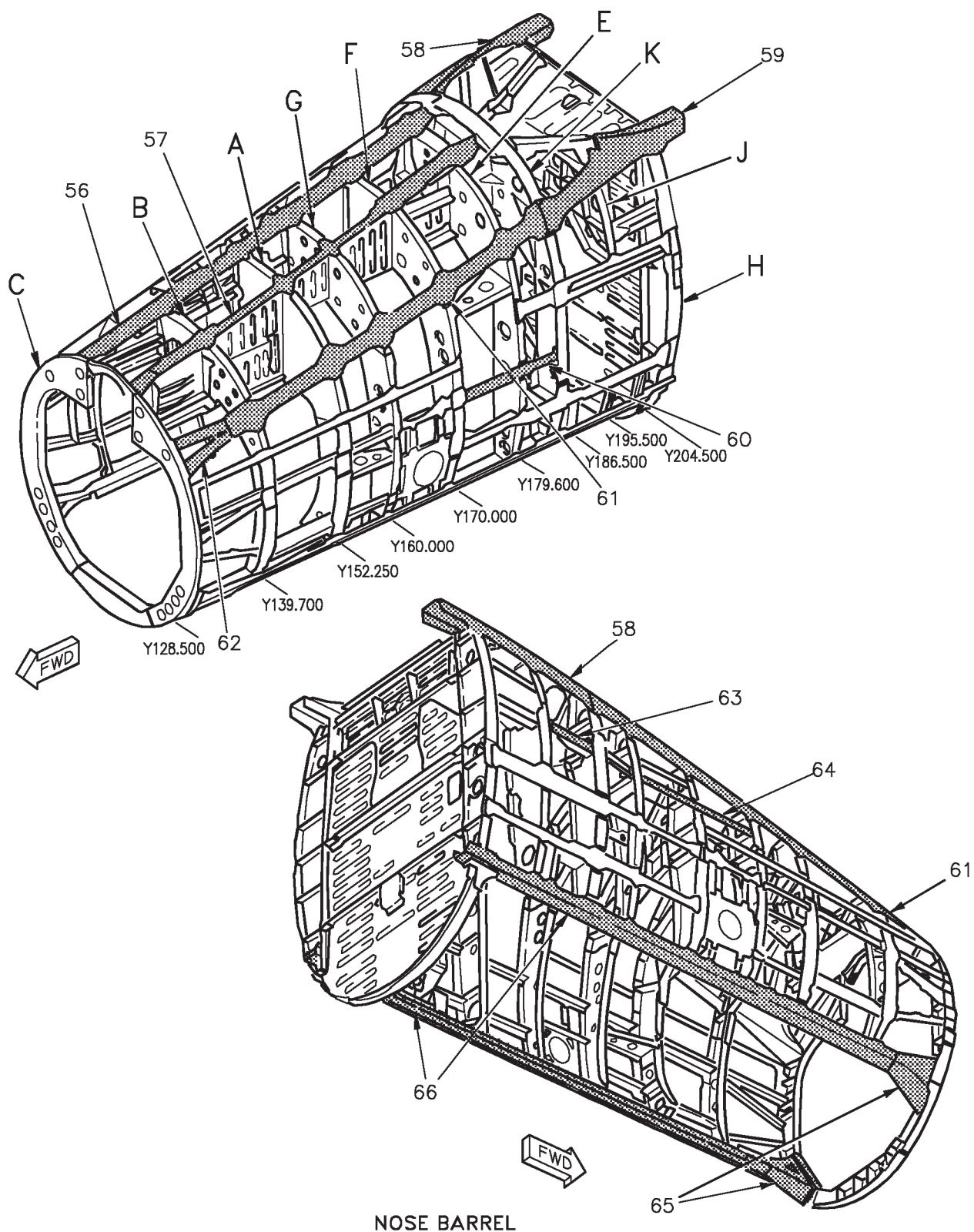
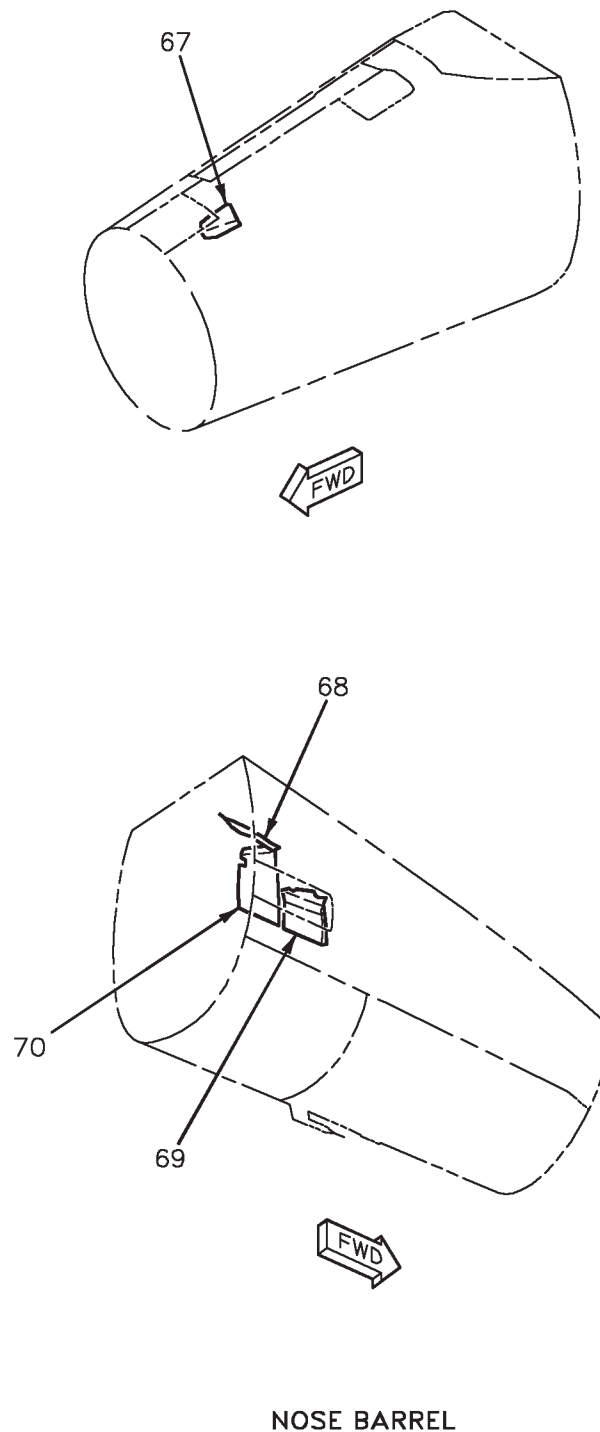


Figure 2. Corrosion Prone Areas (Sheet 3)



NOSE BARREL

Figure 2. Corrosion Prone Areas (Sheet 4)

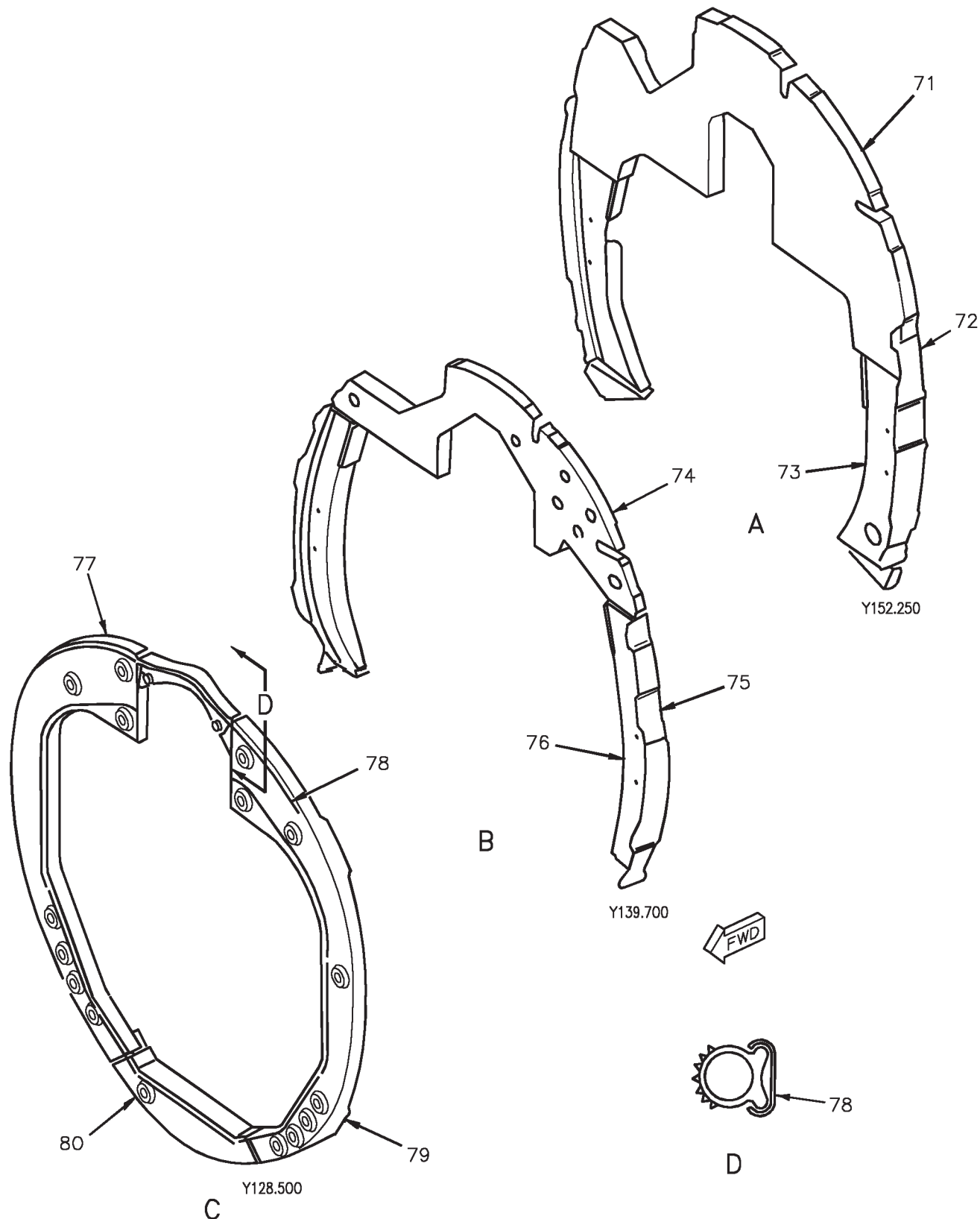


Figure 2. Corrosion Prone Areas (Sheet 5)

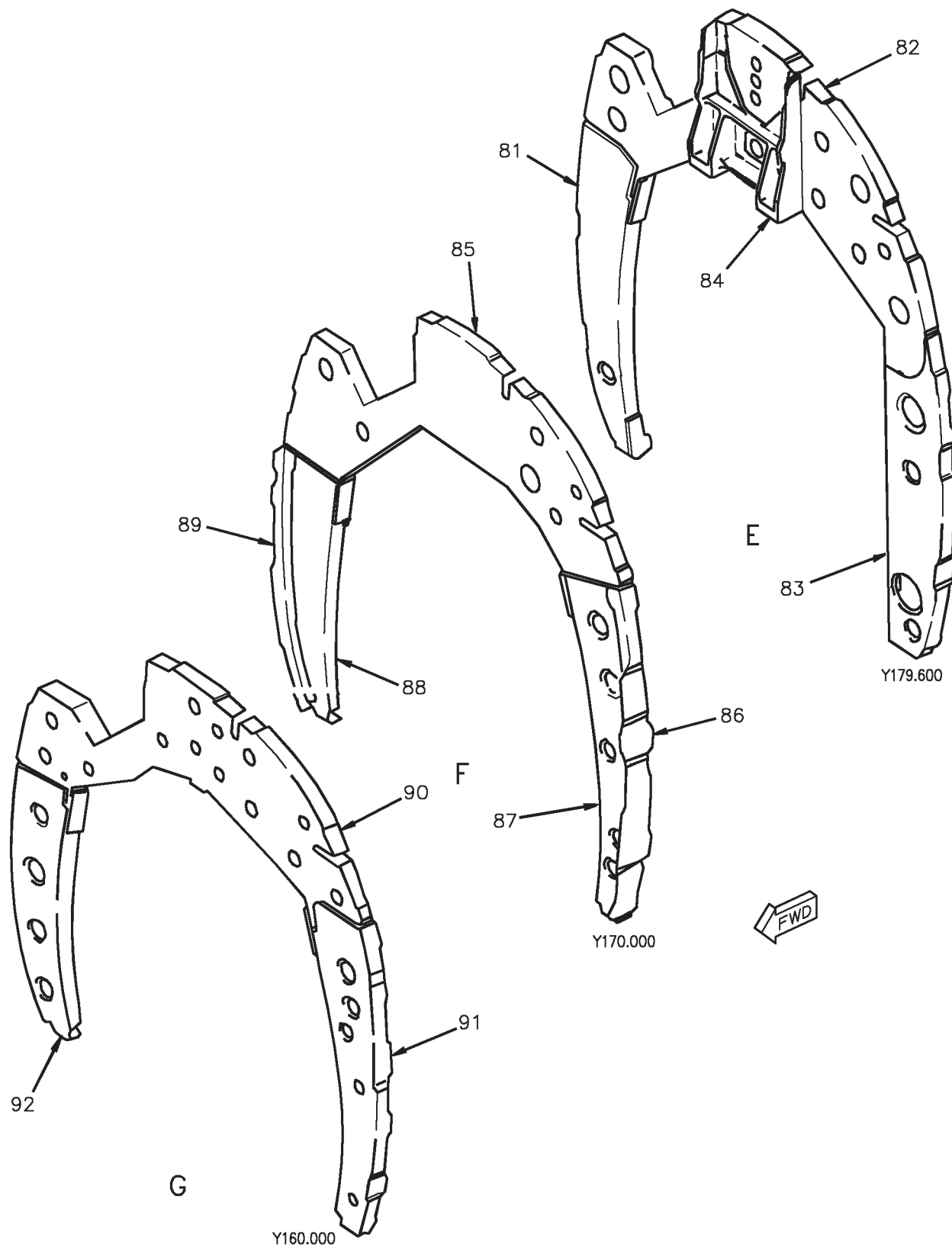


Figure 2. Corrosion Prone Areas (Sheet 6)

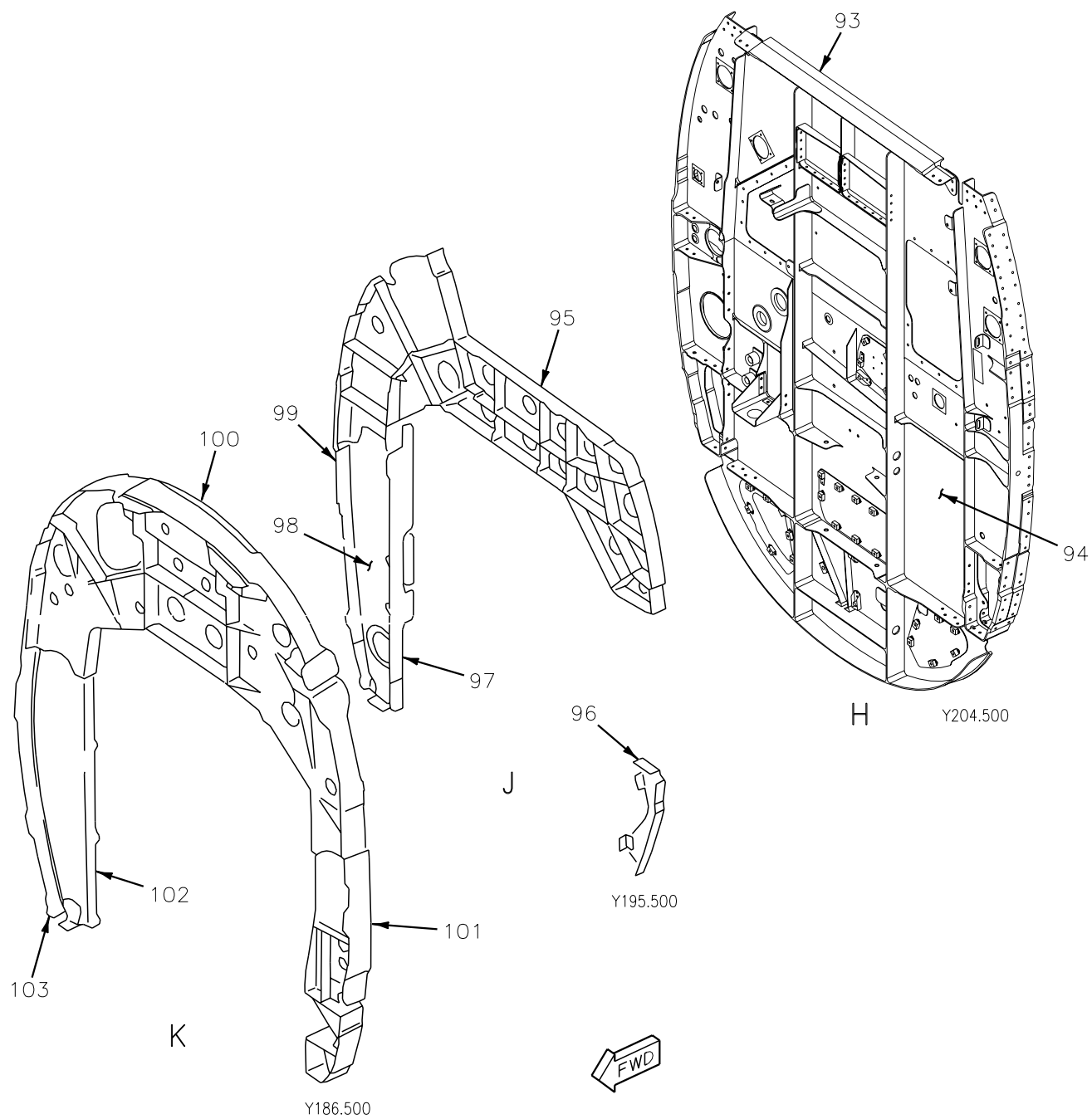


Figure 2. Corrosion Prone Areas (Sheet 7)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------------|-----------------------------------|
| 1 | Door | 7075-T76 Alclad, Sheet | Surface |
| 2 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 3 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 4 | Door 104 | 7075-T76 Alclad, Sheet | Surface |
| 5 | Door 4 | 7075-T76 Alclad, Sheet | Surface |
| 6 | Web | 7075-T6 Alclad, Sheet | Surface |
| 7 | Leaf | 7075-T73511 Al Aly, Extrusion | Pitting |
| 8 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 9 | Door 5 | 7075-T7651 Alclad, Sheet | Surface |
| 10 | Door 59 | A356-T61 Al Aly, Casting | Pitting |
| 11 | Door 109 | 7075-T6 Alclad, Sheet | Surface |
| 12 | Door 8 | 7075-T7651 Alclad, Plate | Surface |
| 13 | Door 140 | 7075-T6 Alclad, Sheet | Surface |
| 14 | Door | A356-T61 Al Aly, Casting | Pitting |
| 15 | Skin | 7075-T76 Alclad, Sheet | Surface, Galvanically Accelerated |
| 16 | Sill | 7075-T76 Al Aly, Extrusion | Pitting |
| 17 | Fairing | 2024-T72 Alclad, Sheet | Surface |
| 18 | Door 105 | 7075-T76 Alclad, Sheet | Surface |
| 19 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 20 | Hinge | 7075-T7351 Al Aly, Plate | Pitting |
| 21 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 22 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 23 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 24 | Tee | 7075-T76511, Al Aly, Extrusion | Pitting |

Figure 2. Corrosion Prone Areas (Sheet 8)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 25 | Web | 7075-T6 Alclad, Sheet | Surface |
| 26 | Sill | 7075-T6 Alclad, Sheet | Surface |
| 27 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 28 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 29 | Intercostal | 7075-T76511 Al Aly, Extrusion | Pitting |
| 30 | Support | 7075-T73 Al Aly, Machining | Pitting |
| 31 | Leaf Hinge | 7075-T73511 Al Aly, Extrusion | Pitting |
| 32 | Support | 7075-T73 Al Aly, Machining | Pitting |
| 33 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 34 | Beam | 7075-T7351 Al Aly, Plate | Pitting |
| 35 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 36 | Support | 7075-T73 Al Aly, Pressing | Pitting |
| 37 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 38 | Support | 7075-T73 Al Aly, Pressing | Pitting |
| 39 | Channel | 7075-T6 Alclad, Sheet | Surface |
| 40 | Tee | 7075-T6 Alclad, Sheet | Surface |
| 41 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 42 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 43 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 44 | Web | 7075-T6 Alclad, Sheet | Surface |
| 45 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 46 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 47 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 48 | Intercostal | 7075-T76511 Al Aly, Extrusion | Pitting |
| 49 | Stiffener | 7075-T6 Alclad, Sheet | Surface |

Figure 2. Corrosion Prone Areas (Sheet 9)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 50 | Stiffener | 7075-T6 Alclad, Sheet | Surface |
| 51 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 52 | Stiffener | 7075-T6 Alclad, Sheet | Surface |
| 53 | Stiffener | 7075-T6 Alclad, Sheet | Surface |
| 54 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 55 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 56 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 57 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 58 | Longeron Splice | 7075-T73 Al Aly, Pressing | Pitting |
| 59 | Longeron Splice | 7075-T73 Al Aly, Pressing | Pitting |
| 60 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 61 | Longeron | 7075-T76 Al Aly, Extrusion | Pitting |
| 62 | Longeron | 7075-T73 Al Aly, Pressing | Pitting |
| 63 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 64 | Stringer | 7075-T6 Al Aly, Extrusion | Pitting |
| 65 | Longeron | 7075-T73 Al Aly, Pressing | Pitting |
| 66 | Longeron | 7075-T76 Al Aly, Extrusion | Pitting |
| 67 | Cover (Door NBD) | 7075-T6 Alclad, Sheet | Surface |
| 68 | Seal (Door NBC) | 7075-T6 Alclad, Sheet | Surface |
| 69 | Seal (Door NBA) | 7075-T6 Alclad, Sheet | Surface |
| 70 | Seal (Door NBB) | 7075-T6 Alclad, Sheet | Surface |
| 71 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 72 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 73 | Web | 7075-T6 Alclad, Sheet | Surface |
| 74 | Former | 7075-T7351 Al Aly, Plate | Pitting |

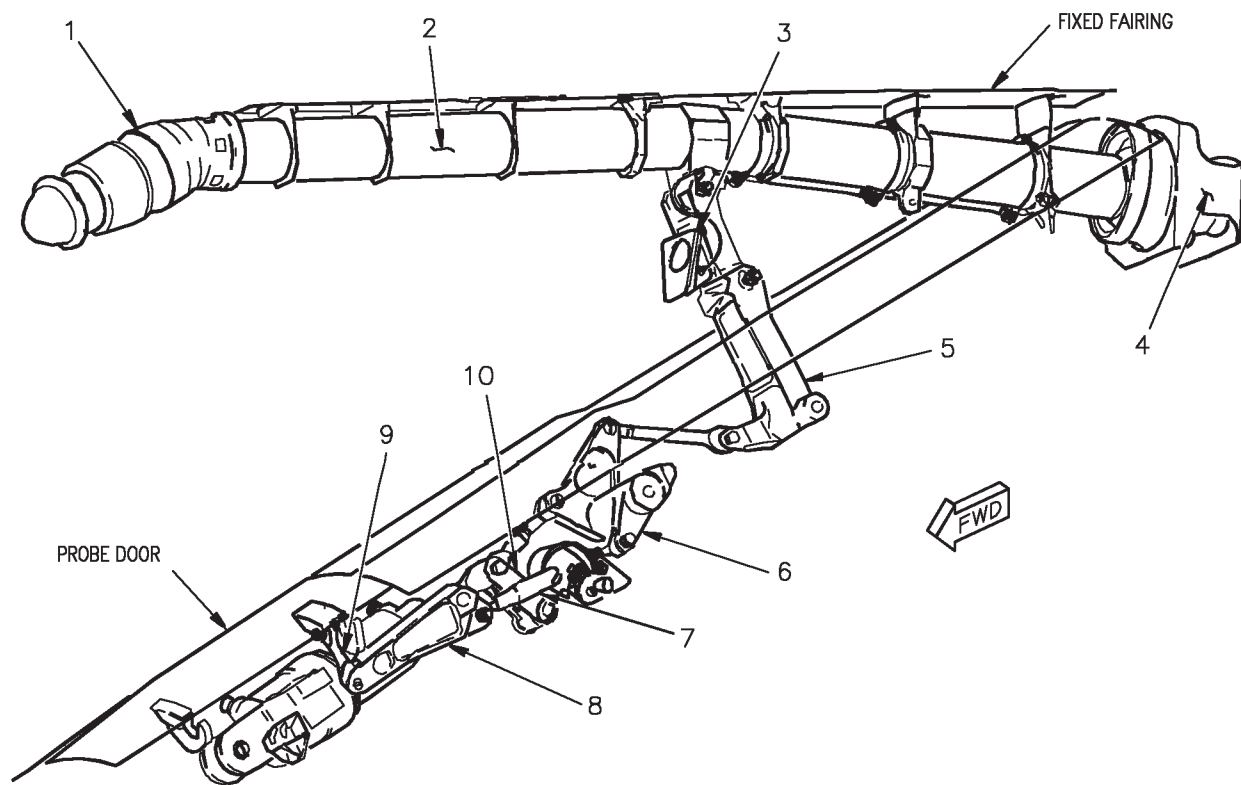
Figure 2. Corrosion Prone Areas (Sheet 10)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 75 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 76 | Former | 7075-T6 Alclad, Sheet | Surface |
| 77 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 78 | Retainer | 6061-T6 Al Aly, Sheet | Surface |
| 79 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 80 | Splice | 7075-T7351 Al Aly, Plate | Pitting |
| 81 | Former | 7075-T6 Alclad, Sheet | Surface |
| 82 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 83 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 84 | Former | 7075-T73 Al Aly, Pressing | Pitting |
| 85 | Former | 7075-T7352 Al Aly, Forging | Pitting |
| 86 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 87 | Web | 7075-T6 Alclad, Sheet | Surface |
| 88 | Web | 7075-T6 Alclad, Sheet | Surface |
| 89 | Tee | 7075-T6 Al Aly, Extrusion | Pitting |
| 90 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 91 | Former | 7075-T6 Alclad, Sheet | Surface |
| 92 | Former | 7075-T6 Alclad, Sheet | Surface |
| 93 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 94 | Bulkhead | 7075-T6 Alclad, Plate | Pitting |
| 95 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 96 | Former | 7075-T6 Alclad, Sheet | Surface |
| 97 | Tee | 7075-T76511 Al Aly, Extrusion | Pitting |
| 98 | Web | 7075-T6 Alclad, Sheet | Surface |
| 99 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |

Figure 2. Corrosion Prone Areas (Sheet 11)

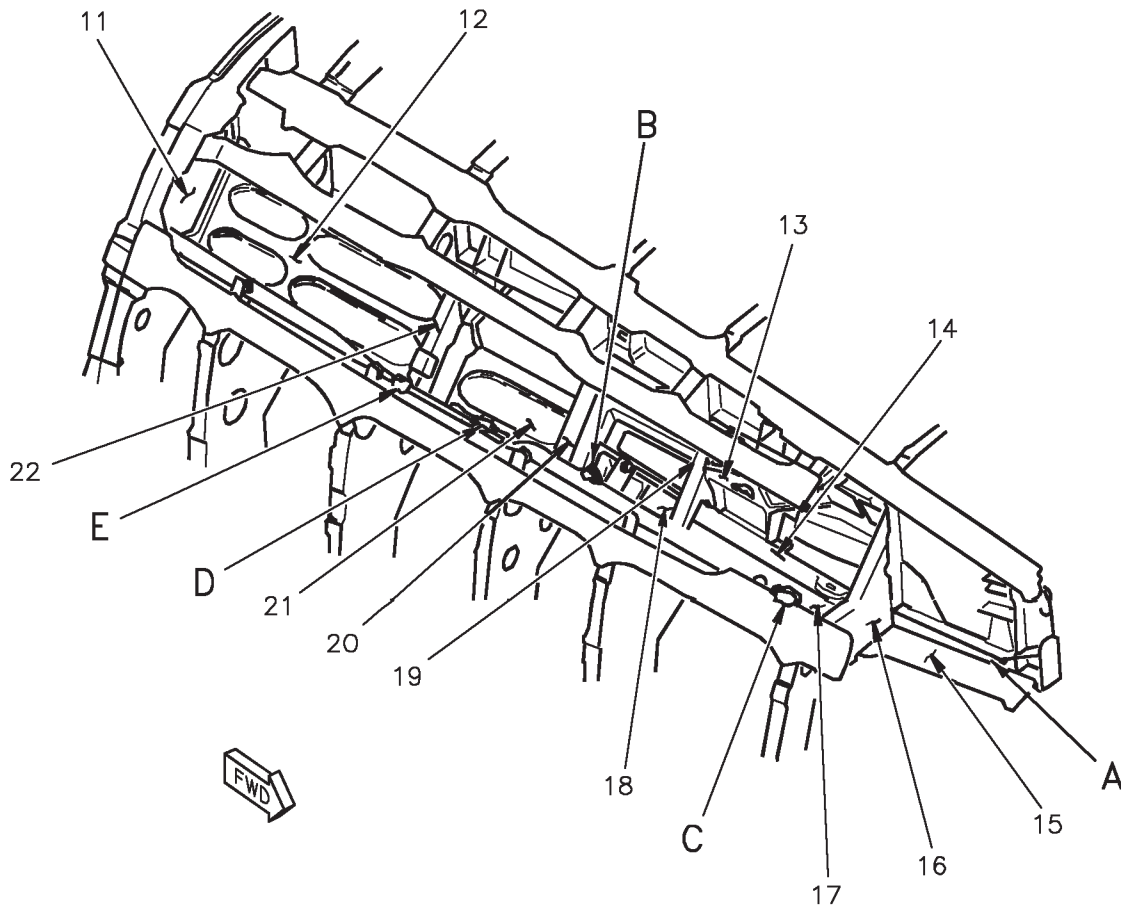
| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|------------|-------------------------|----------------------------|-------------------|
| 100 | Former | 7075-T7352 Al Aly, Forging | Pitting |
| 101 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 102 | Web | 7075-T6 Alclad, Sheet | Surface |
| 103 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |

Figure 2. Corrosion Prone Areas (Sheet 12)



INFLIGHT REFUELING PROBE

Figure 3. Corrosion Prone Areas (Sheet 1)



INFLIGHT REFUELING PROBE

PROBE, FIXED FAIRING, FORWARD DOOR, AND
MECHANISM OMITTED FOR CLARITY

Figure 3. Corrosion Prone Areas (Sheet 2)

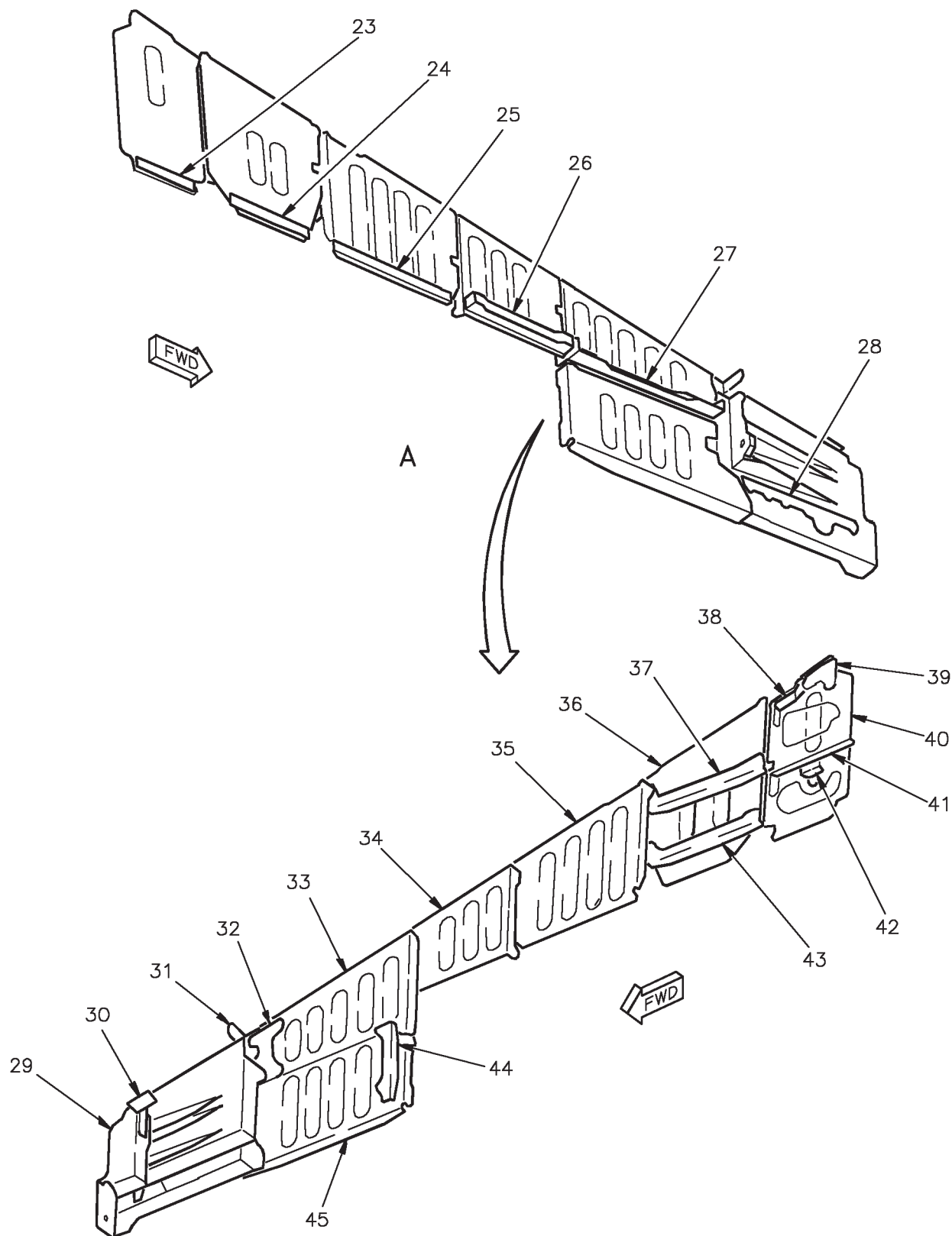


Figure 3. Corrosion Prone Areas (Sheet 3)

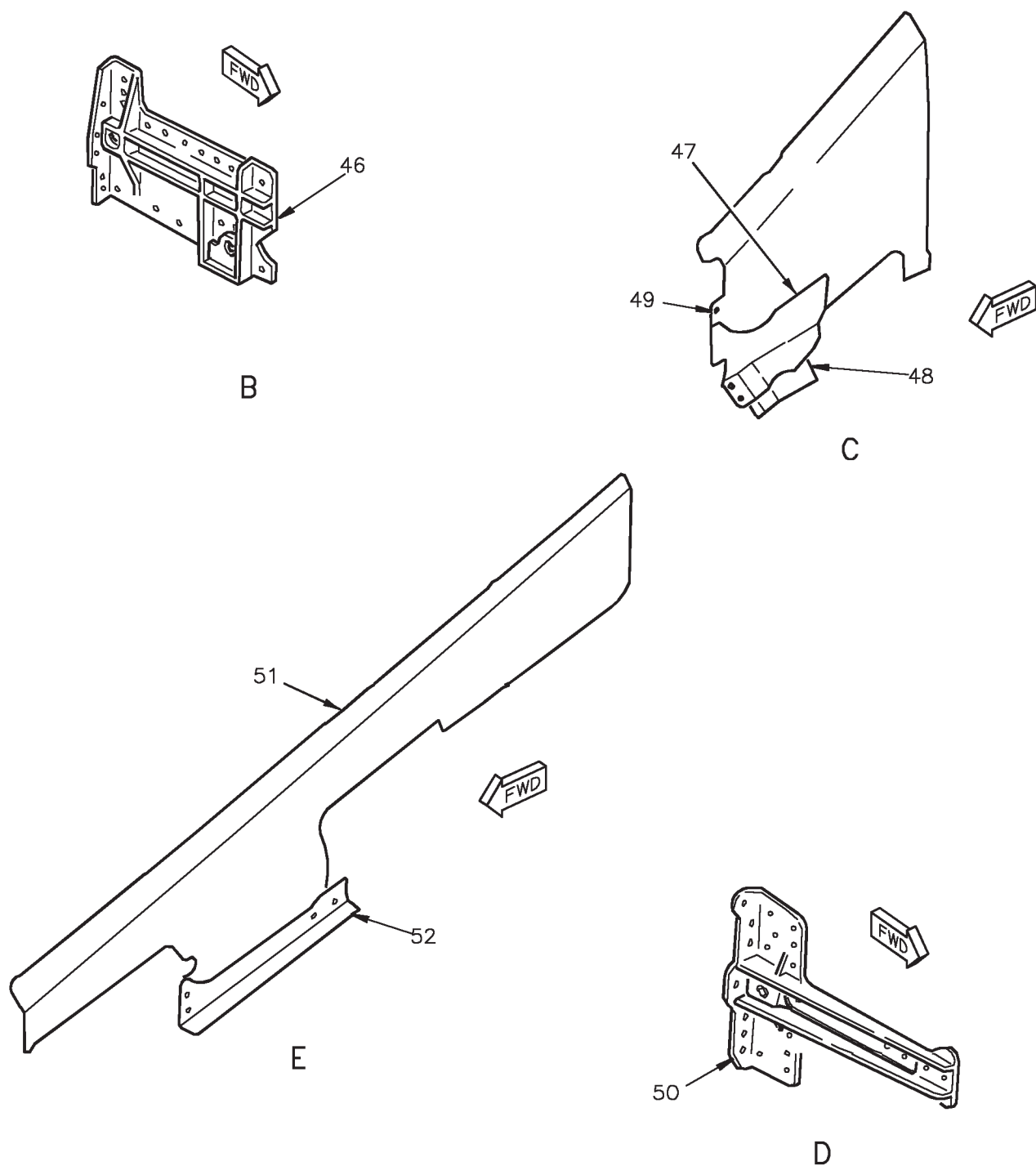


Figure 3. Corrosion Prone Areas (Sheet 4)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------------|-----------------------------------|
| 1 | Adapter | 7075-T73 Al Aly, Forging | Pitting |
| 2 | Barrel | 2024-T8511 Al Aly, Extrusion | Pitting, Galvanically Accelerated |
| 3 | Link | 7075-T73 Al Aly, Forging | Pitting, Galvanically Accelerated |
| 4 | Swivel Support | A356-T61 Al Aly, Casting | Pitting, Galvanically Accelerated |
| 5 | Bellcrank | 7075-T73 Al Aly, Forging | Pitting, Galvanically Accelerated |
| 6 | Bellcrank | 7075-T73652 Al Aly, Forging | Pitting, Galvanically Accelerated |
| 7 | Link | 2024-T6 Al Aly, Extrusion | Pitting, Galvanically Accelerated |
| 8 | Lever | 7075-T7351 Al Aly, Plate | Pitting, Galvanically Accelerated |
| 9 | Link | 7075-T7351 Al Aly, Plate | Pitting, Galvanically Accelerated |
| 10 | Bellcrank | 7075-T73 Al Aly, Forging | Pitting, Galvanically Accelerated |
| 11 | Floor | 7075-T6 Alclad, Sheet | Surface |
| 12 | Floor | 7075-T6 Alclad, Sheet | Surface |
| 13 | Support | 7075-T73 Al Aly, Forging | Pitting |
| 14 | Support | 7075-T73 Al Aly, Forging | Pitting |
| 15 | Floor | 7075-T6 Alclad, Sheet | Surface |
| 16 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 17 | Structural Angle | 7075-T73 Al Aly, Forging | Pitting |
| 18 | Support | 7075-T73 Al Aly, Forging | Pitting |
| 19 | Segment | 7075-T7351 Al Aly, Plate | Pitting |
| 20 | Segment | 7075-T7351 Al Aly, Plate | Pitting |

Figure 3. Corrosion Prone Areas (Sheet 5)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 21 | Floor | 7075-T6 Alclad, Sheet | Surface |
| 22 | Segment | 7075-T7352 Al Aly, Forging | Pitting |
| 23 | Shim | 5052-H39 Al Lam, Sheet | Pitting |
| 24 | Shim | 5052-H39 Al Lam, Sheet | Pitting |
| 25 | Shim | 5052-H39 Al Lam, Sheet | Pitting |
| 26 | Channel | 7075-T7351 Al Aly, Plate | Pitting |
| 27 | Angle | 7075-T7351 Al Aly, Plate | Pitting |
| 28 | Spacer | 6061-T6 Al Aly, Sheet | Surface |
| 29 | Support | 7075-T73 Al Aly, Pressing | Pitting |
| 30 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 31 | Tee | 7075-T76511 Al Aly, Extrusion | Pitting |
| 32 | Splice | 7075-T6 Alclad, Sheet | Surface |
| 33 | Web | 7075-T6 Alclad, Sheet | Surface |
| 34 | Web | 7075-T6 Alclad, Sheet | Surface |
| 35 | Web | 7075-T6 Alclad, Sheet | Surface |
| 36 | Web | 7075-T6 Alclad, Sheet | Surface |
| 37 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 38 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 39 | Splice | 7075-T6 Alclad, Sheet | Surface |
| 40 | Web | 7075-T6 Alclad, Sheet | Surface |
| 41 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 42 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 43 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 44 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 45 | Web | 7075-T6 Alclad, Sheet | Surface |

Figure 3. Corrosion Prone Areas (Sheet 6)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------|----------------|
| 46 | Support | 7075-T73 Al Aly, Forging | Pitting |
| 47 | Splice | 7075-T6 Alclad, Sheet | Surface |
| 48 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 49 | Web | 7075-T6 Alclad, Sheet | Surface |
| 50 | Support | 7075-T73 Al Aly, Forging | Pitting |
| 51 | Web | 7075-T6 Alclad, Sheet | Surface |
| 52 | Angle | 7075-T6 Alclad, Sheet | Surface |

Figure 3. Corrosion Prone Areas (Sheet 7)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

NOSE BARREL SEALS AND SEALING

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |

Alphabetical Index

| Subject | Page No. |
|--------------------|----------|
| Introduction | 1 |
| Sealing..... | 1 |
| Seals | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. Sealing on the nose barrel is for corrosion control. Sealing prevents moisture entry, dissimilar metal contact, and provides a barrier between structure, skin, and elements.

3. **SEALING.** Use MIL-S-83430, class B-4 sealing compound (WP010 00 and A1-F18AC-SRM-200, WP011 00). Use class B for fay, form in place, butt joint, and fastener sealing. MIL-S-8802 or MIL-S-81733 is the alternate, except when graphite epoxy structure or form in place door seals are used.

a. Removable covers/doors or access panels on mold line surfaces are sealed with form in place seals.

NOTE

Fay surface and butt joint sealing may be done simultaneously by being sure sealant squeeze out from the fay surface fills the butt joint gap.

b. The periphery of all external permanent skins, structure, components, or parts are fay surface sealed. This includes items attached with removable fasteners and do not require removal for scheduled maintenance, gun bay compartment, gun bay door, inflight refueling probe well, and doors.

c. The periphery of all external permanent skins, structure, components, or parts are butt joint

or fillet sealed. This includes gun bay compartment, gun bay door, inflight refueling probe well, and doors.

d. All permanent fasteners except aluminum rivets, see step e below, installed in mold line and other exterior categorized surfaces are installed wet with sealing compound.

e. Aluminum rivets in mold line surfaces and exterior categorized areas are installed with epoxy primer or sealant, except fast rivets, which are wet installed with epoxy primer.

4. **SEALS.** See figure 1. Weather seal, is installed on forward former Y128.50.

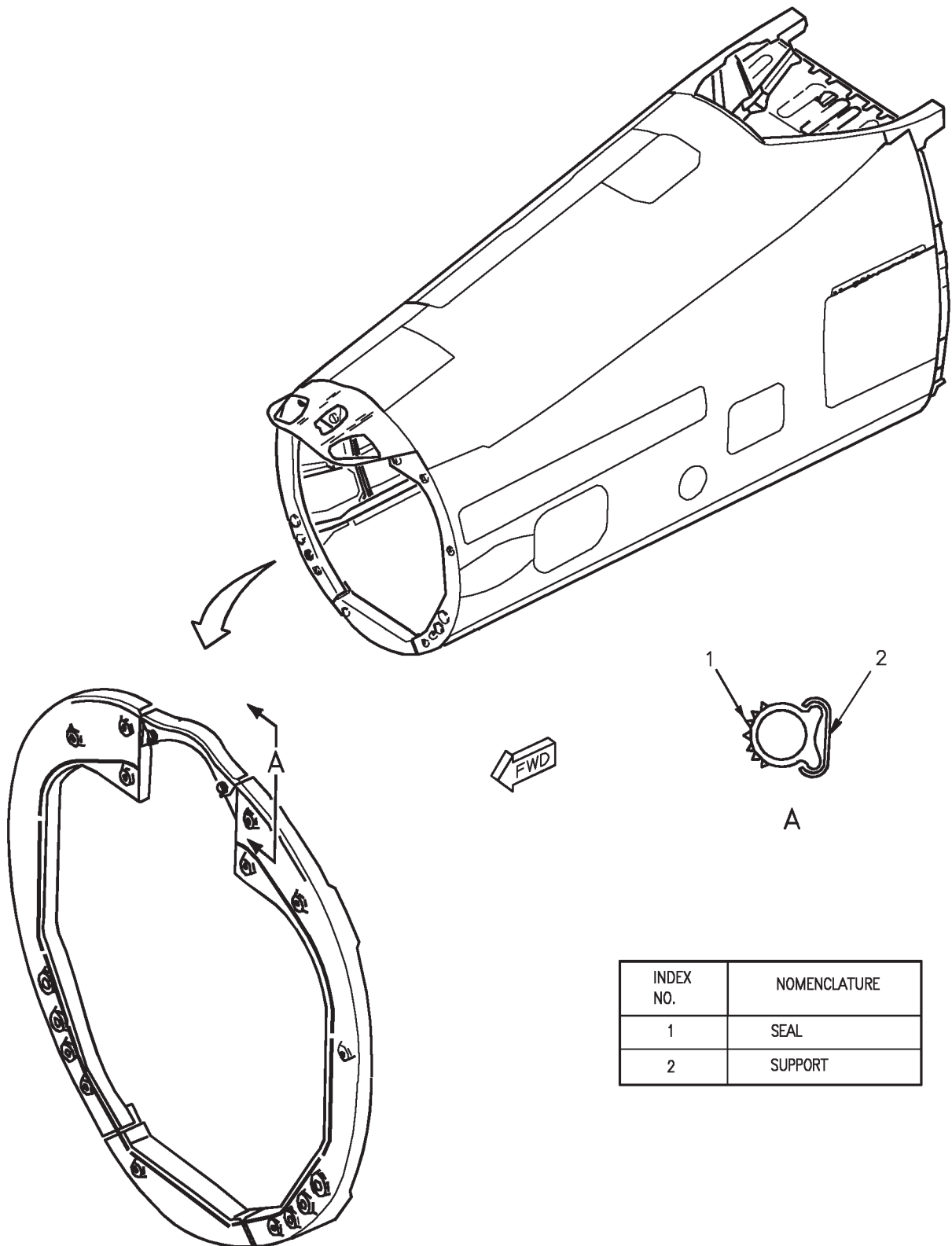


Figure 1. Seals and Sealing

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

NOSE BARREL FINISH SYSTEM AND MARKINGS

Reference Material

| | |
|--|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Structure Repair, Forward Fuselage | A1-F18AE-SRM-650 |

Alphabetical Index

| Subject | Page No. |
|----------------------------|----------|
| Description | 1 |
| Aircraft Refinishing | 3 |
| Finish System | 2 |
| Markings..... | 3 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The nose barrel is that structure and skin aft of the radome and forward of the windshield. Structure and surface material is mostly aluminum alloy and graphite epoxy. On 163985 AND UP, some parts require different damage evaluation which may affect finish system application. For identification of these parts refer to applicable work package in A1-F18AE-SRM-650.

Materials Required

NOTE

Alternate item part numbers are shown indented. ■

Specification
or Part Number

Nomenclature

MIL-P-23377 TY1
MIL-P-85582,
TY1CL1 or CL2

Primer
Primer
■
■
■

Support Equipment Required

None

Materials Required (Continued)**NOTE**

Alternate item specification or part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|------------------------|--|
| MIL-P-23377, TY2 | Primer |
| MIL-P-85582, TY2CL1 | Primer |
| MIL-C-83286 | Aliphatic Polyurethane Enamel |
| MIL-C-85285, TY1 | Coating, Polyurethane, High Solids |
| 8681-GREY-36320-3IN. | Plastic Strip, Press- (Polyurethane Tape) |

3. FINISH SYSTEM. See figure 1.**WARNING**

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

b. One coat MIL-P-23377, Type 2, Class 1 primer on mold line surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) White, FED-STD-595 color no. 17925, aliphatic polyurethane enamel:

- (a) Inflight refueling probe well.
- (b) Inner surface of door 3.
- (c) Inner surface of nose barrel.

(d) Nose landing gear wheel well bulkhead.

(2) Red, FED-STD-595 color no. 11136, aliphatic polyurethane enamel:

- (a) Inflight refueling probe.
- (b) Inflight refueling probe actuating linkage.
- (c) Inner surface of inflight refueling probe fairing.
- (3) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.
- (4) Gray, FED-STD-595 color no. 35237, aliphatic polyurethane enamel.
- (5) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.
- (6) Gray, FED-STD-595 color no. 36320, aliphatic polyurethane enamel.

d. Apply three inch wide, 8681 polyurethane tape to the leading edge of antenna. See figure 1 for location. For polyurethane tape application (WP012 00).

4. **MARKINGS.** See figures 2 and 3.

a. Markings are silk screen applied using contrasting commercial gray enamel. Use table 1 to determine applicable marking color number.

5. **AIRCRAFT REFINISHING.** On 161353 THRU 161929, if complete aircraft requires refinishing, use finish system color diagram shown on figure 1 for 161930 THRU 163175.

Table 1. Marking Color Number

| Finish System Color Number | Marking Color Number |
|--|--|
| <div>1</div> Gray, FED-STD-595 color no. 35237 <div>3</div> Gray, FED-STD-595 color no. 35237 | Gray, FED-STD-595 color no. 36375 Gray, FED-STD-595 color no. 36320 |
| <div>3</div> Gray, FED-STD-595 color no. 36320 <div>4</div> Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36375 |
| <div>1</div> Gray, FED-STD-595 color no. 36375 <div>2</div> Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36320 |
| Gray, FED-STD-595 color no. 36495 | Gray, FED-STD-595 color no. 36375 |
| LEGEND | |
| <div>1</div> 161353 THRU 161925. <div>2</div> 161926 AND UP. <div>3</div> F/A-18A 161926 THRU 161929. <div>4</div> 161930 AND UP. | |

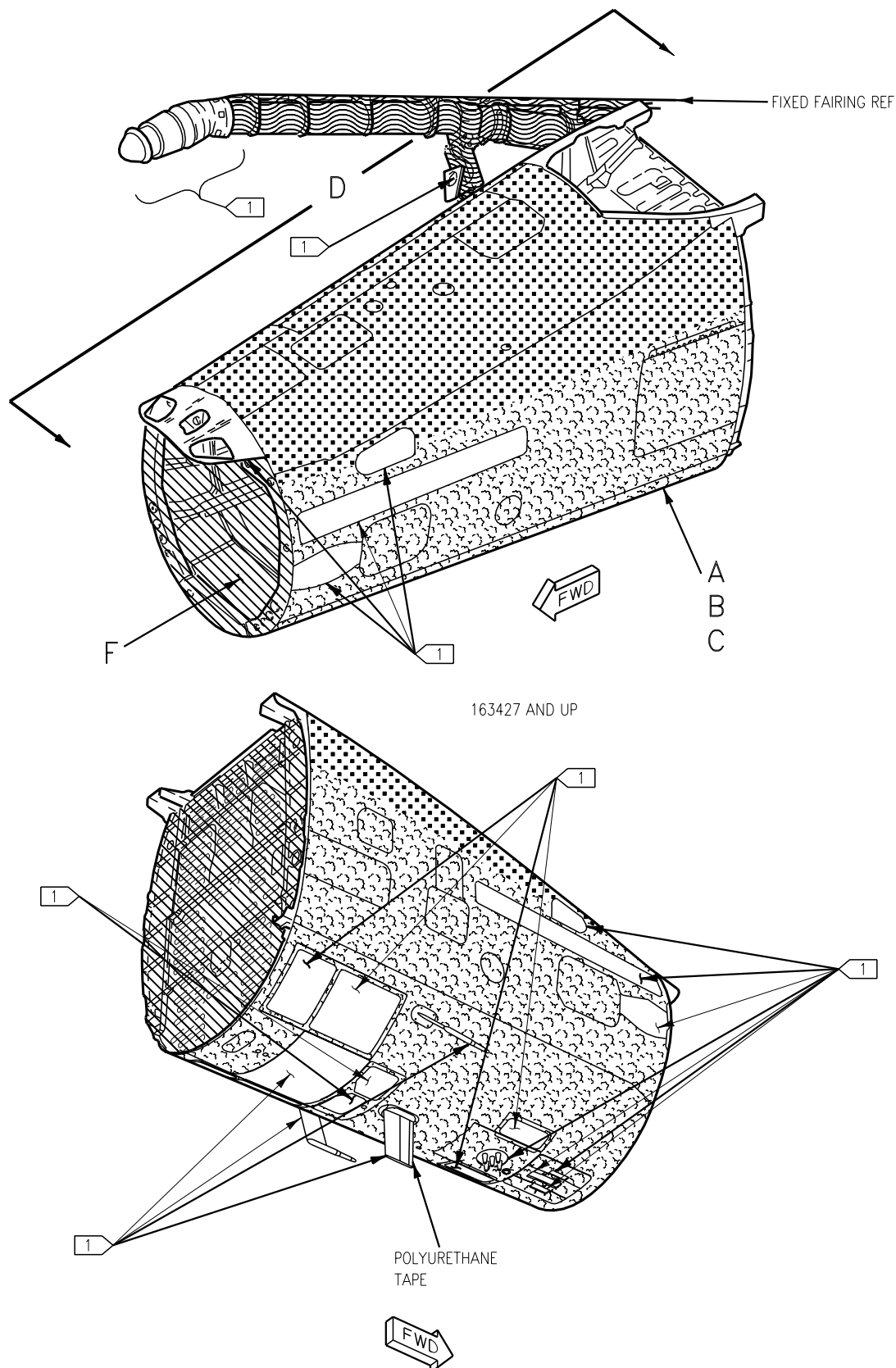


Figure 1. Finish System (Sheet 1)

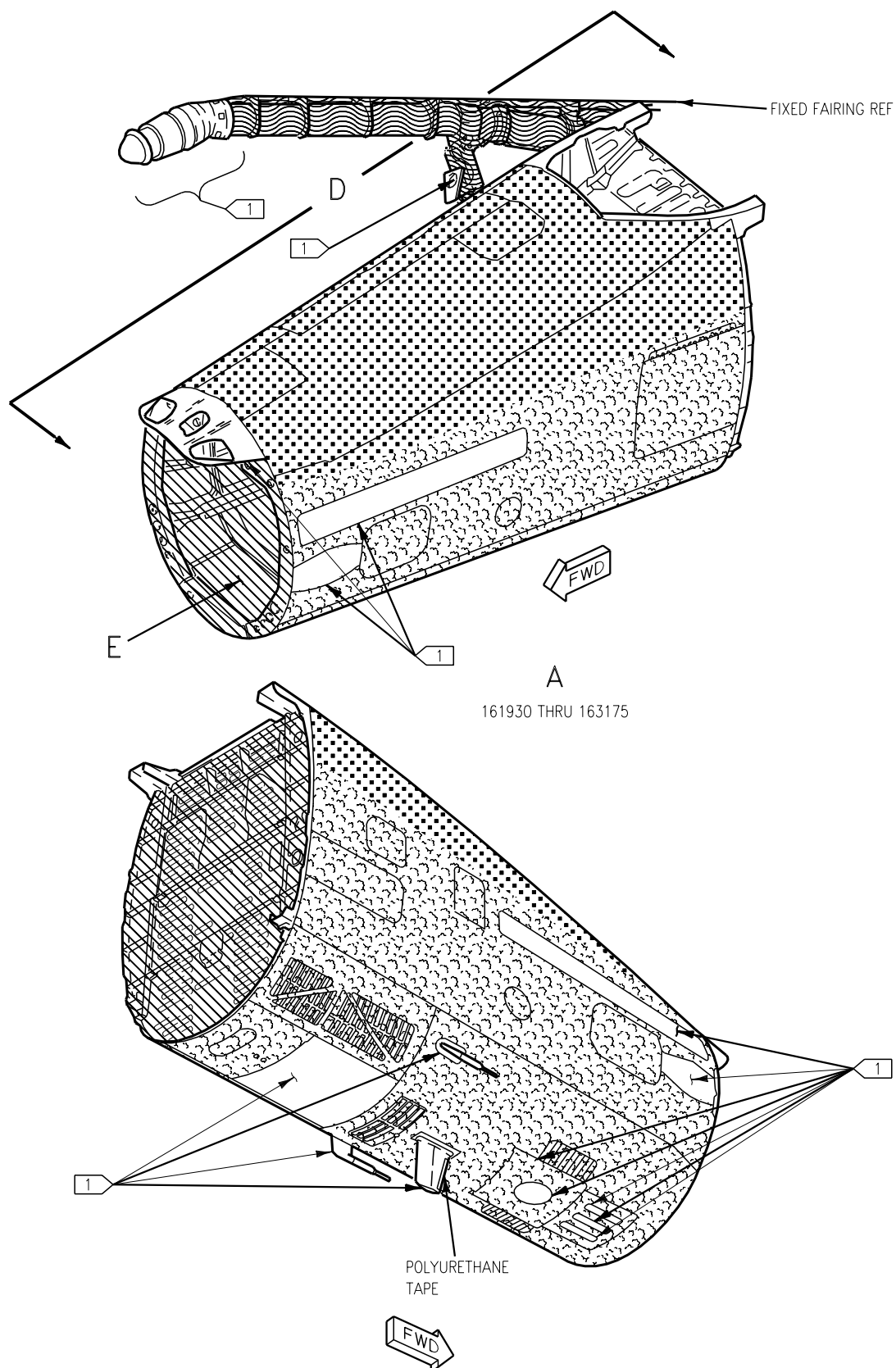


Figure 1. Finish System (Sheet 2)

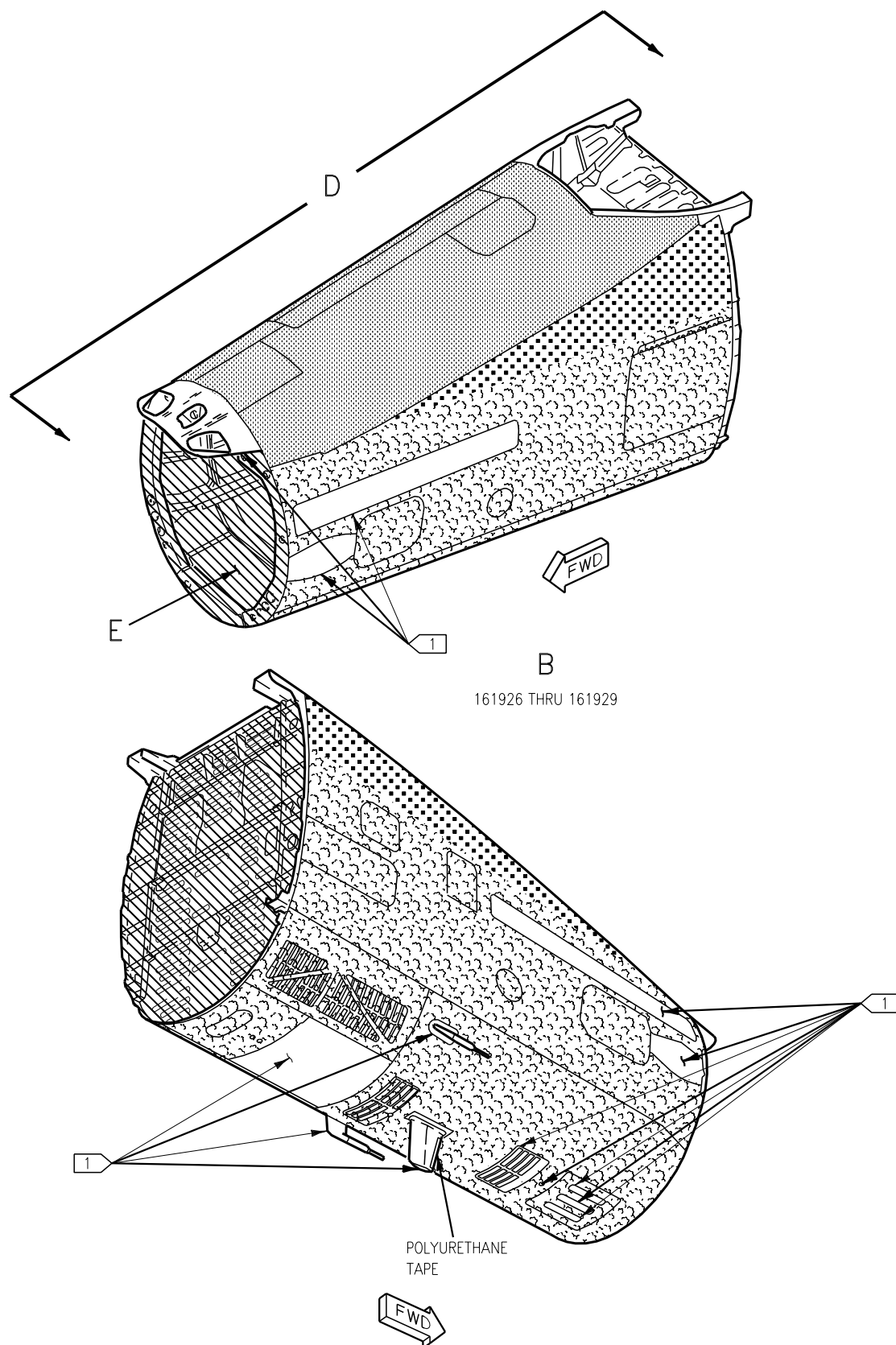


Figure 1. Finish System (Sheet 3)

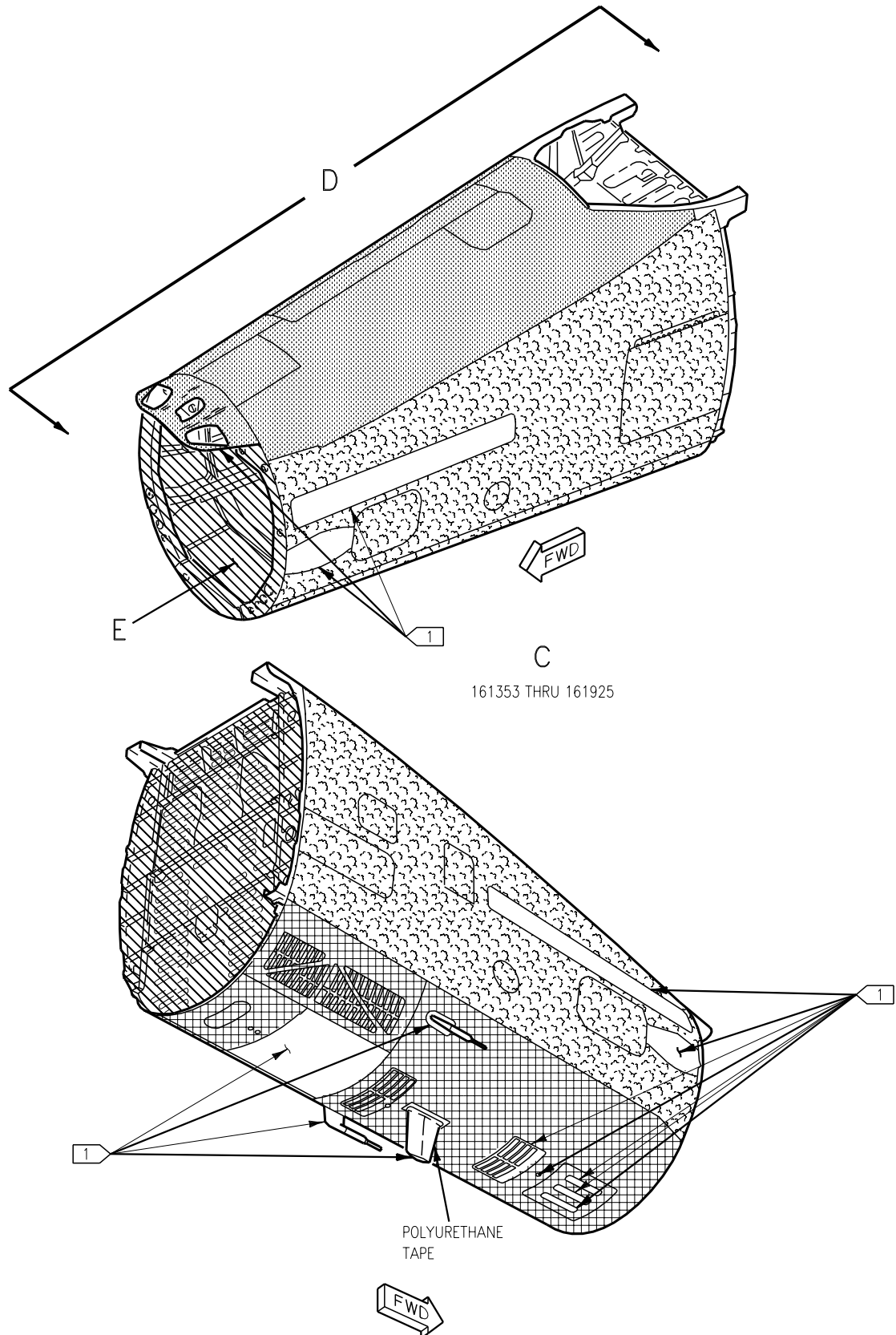
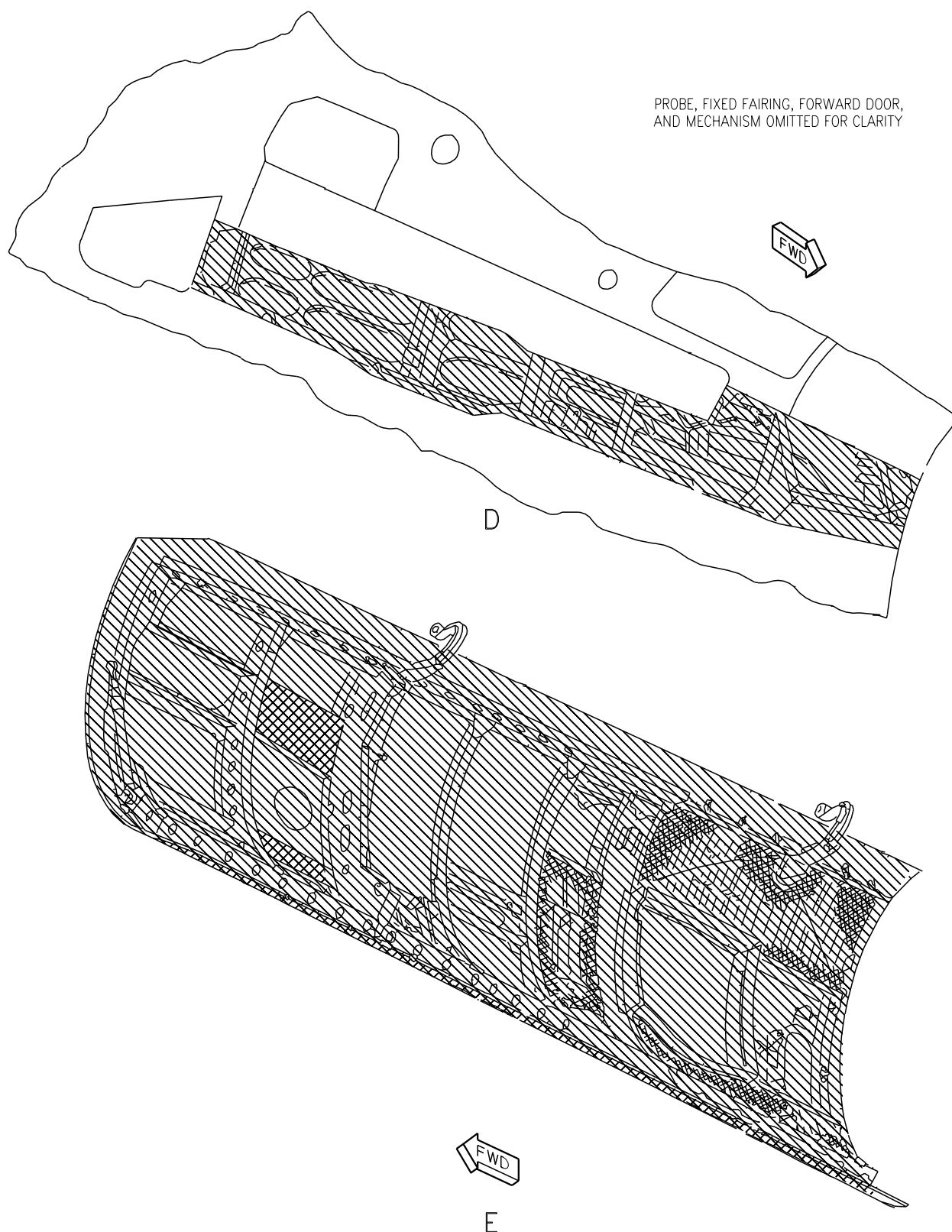
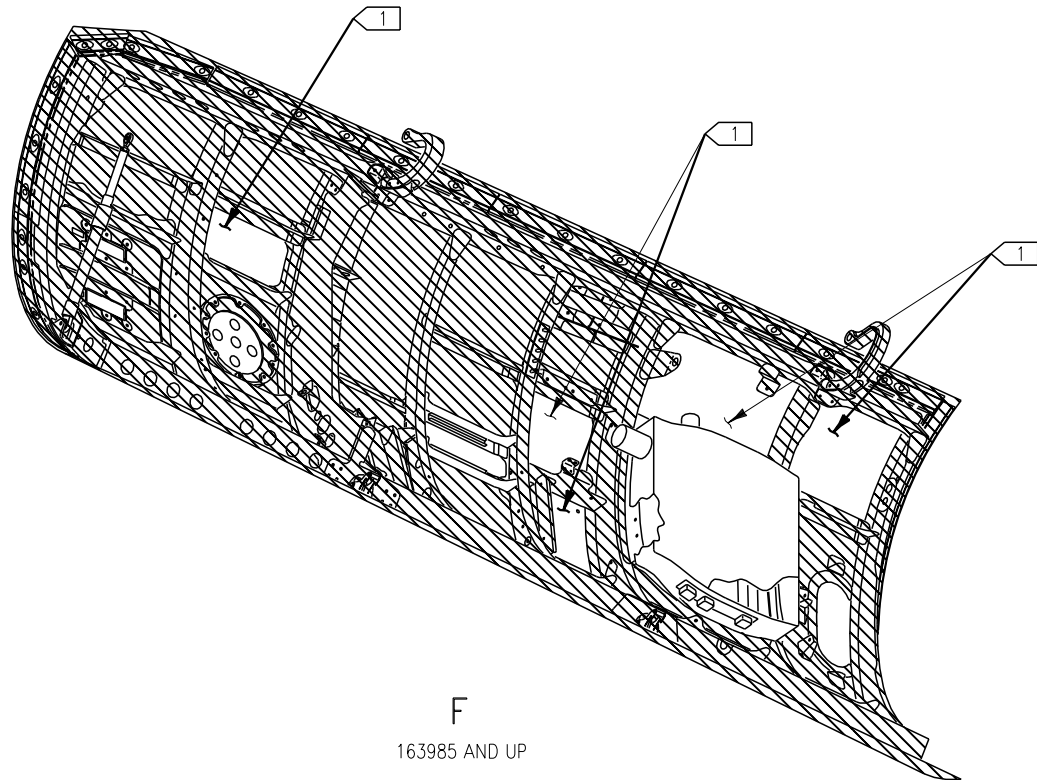


Figure 1. Finish System (Sheet 4)









INNER SURFACE OF DOOR 3.
161353 THRU 163782

Figure 1. Finish System (Sheet 5)



LEGEND

| | |
|---|---|
|  | RED, FED-STD-595 COLOR NO. 11136, ALIPHATIC POLYURETHANE ENAMEL. |
|  | GRAY, FED-STD-595 COLOR NO. 35237, ALIPHATIC POLYURETHANE ENAMEL. |
|  | GRAY, FED-STD-595 COLOR NO. 36375, ALIPHATIC POLYURETHANE ENAMEL. |
|  | GRAY, FED-STD-595 COLOR NO. 36495, ALIPHATIC POLYURETHANE ENAMEL. |
|  | WHITE, FED-STD-595 COLOR NO. 17925, ALIPHATIC POLYURETHANE ENAMEL. |
|  | GRAY, FED-STD-595 COLOR NO. 36320, ALIPHATIC POLYURETHANE ENAMEL. |


 DO NOT PAINT.

Figure 1. Finish System (Sheet 6)

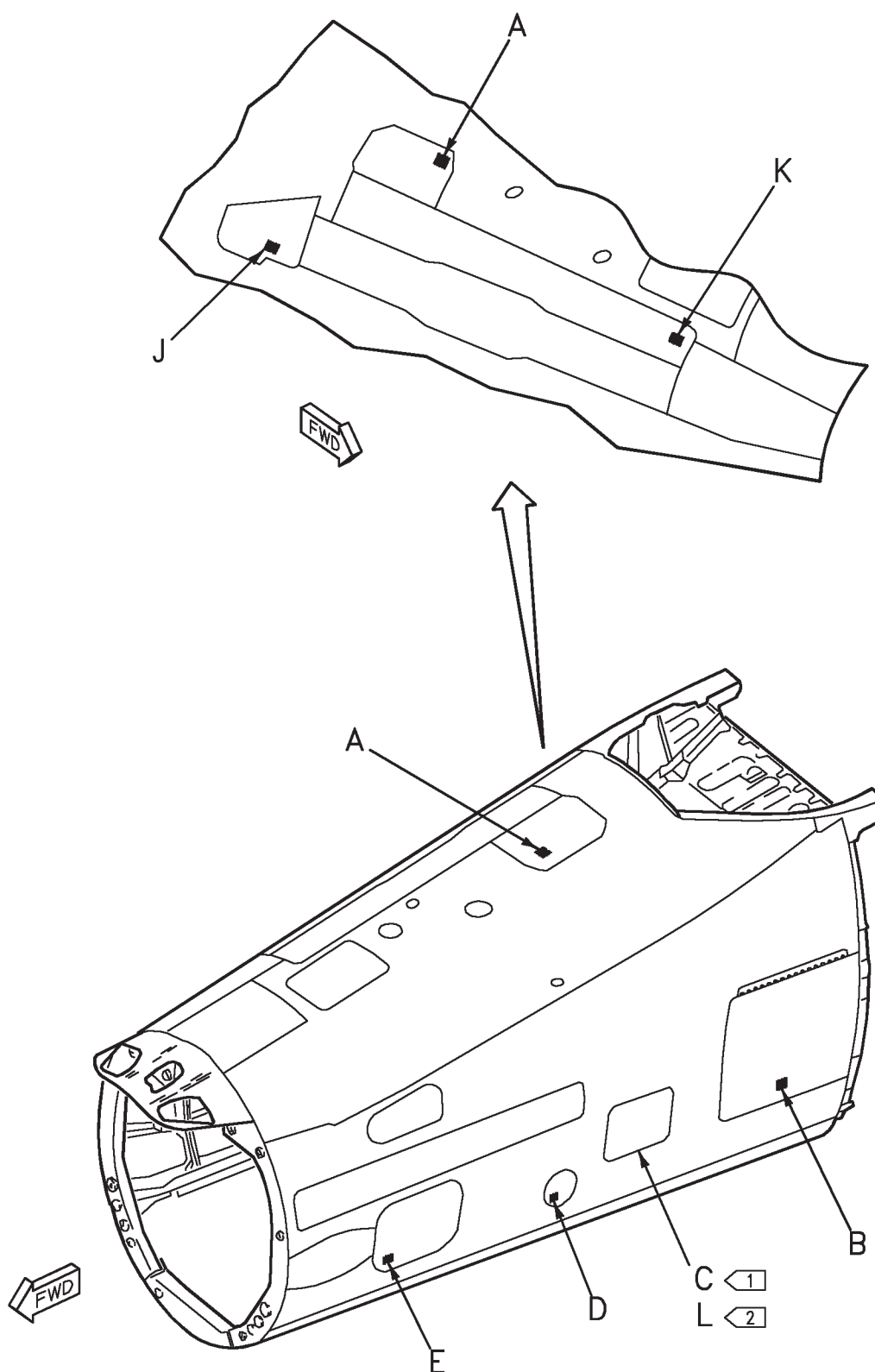


Figure 2. Door Markings (Sheet 1)

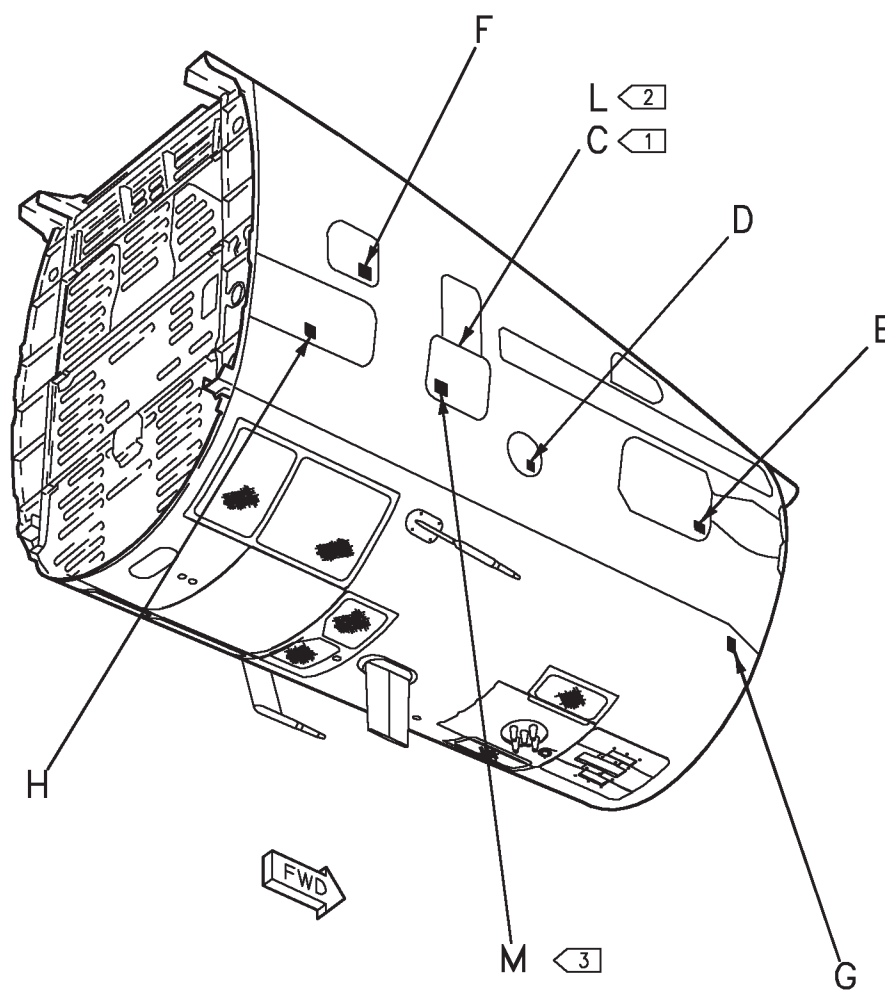


Figure 2. Door Markings (Sheet 2)

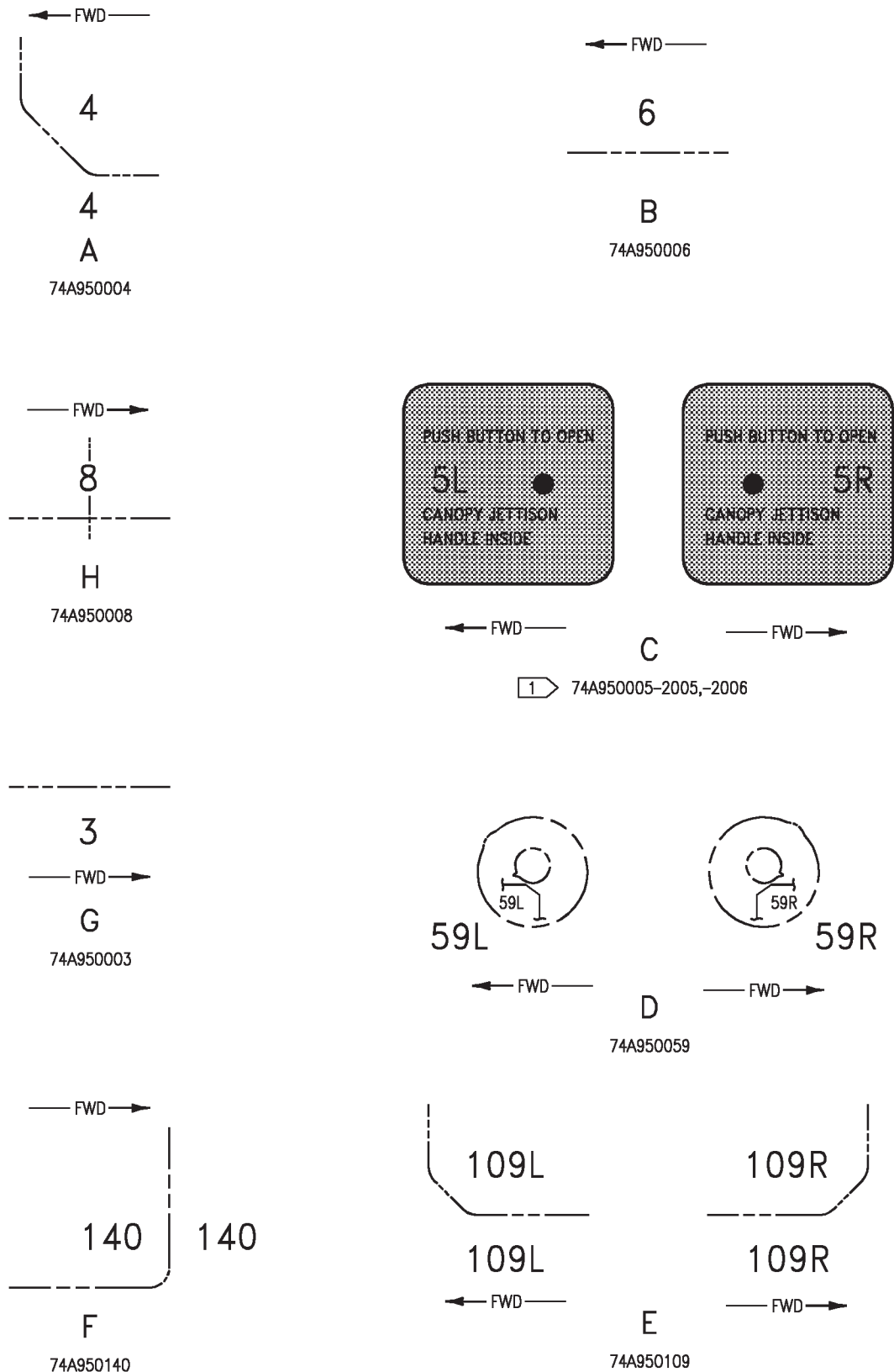
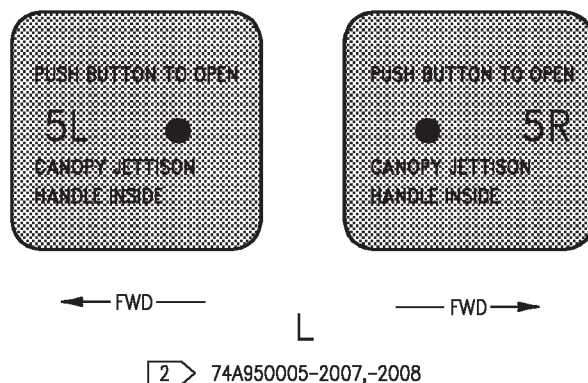
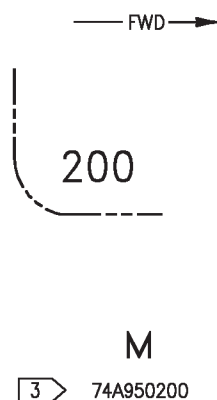
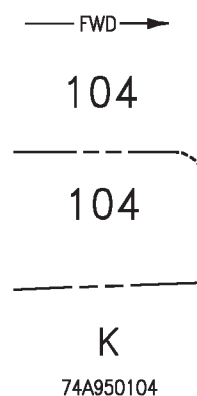
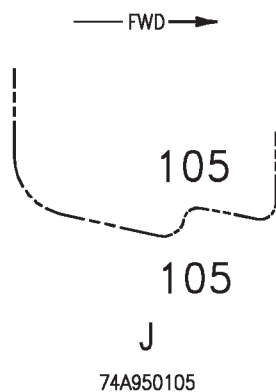


Figure 2. Door Markings (Sheet 3)



LEGEND

- 1 161353 THRU 161961.
- 2 161962 THRU 162477.
- 3 F/A-18D 164279 AND UP.

Figure 2. Door Markings (Sheet 4)

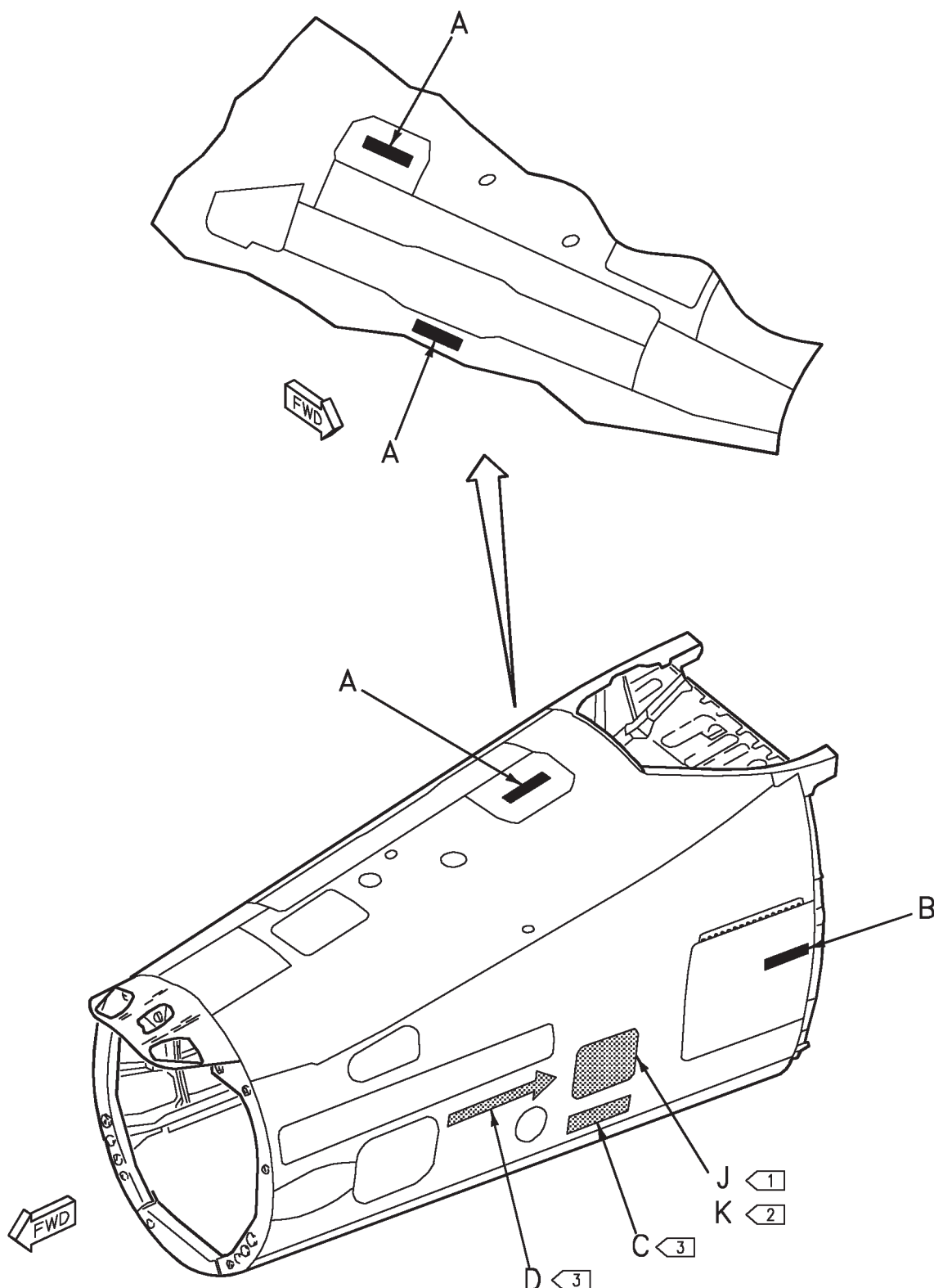


Figure 3. Instructional Markings (Sheet 1)

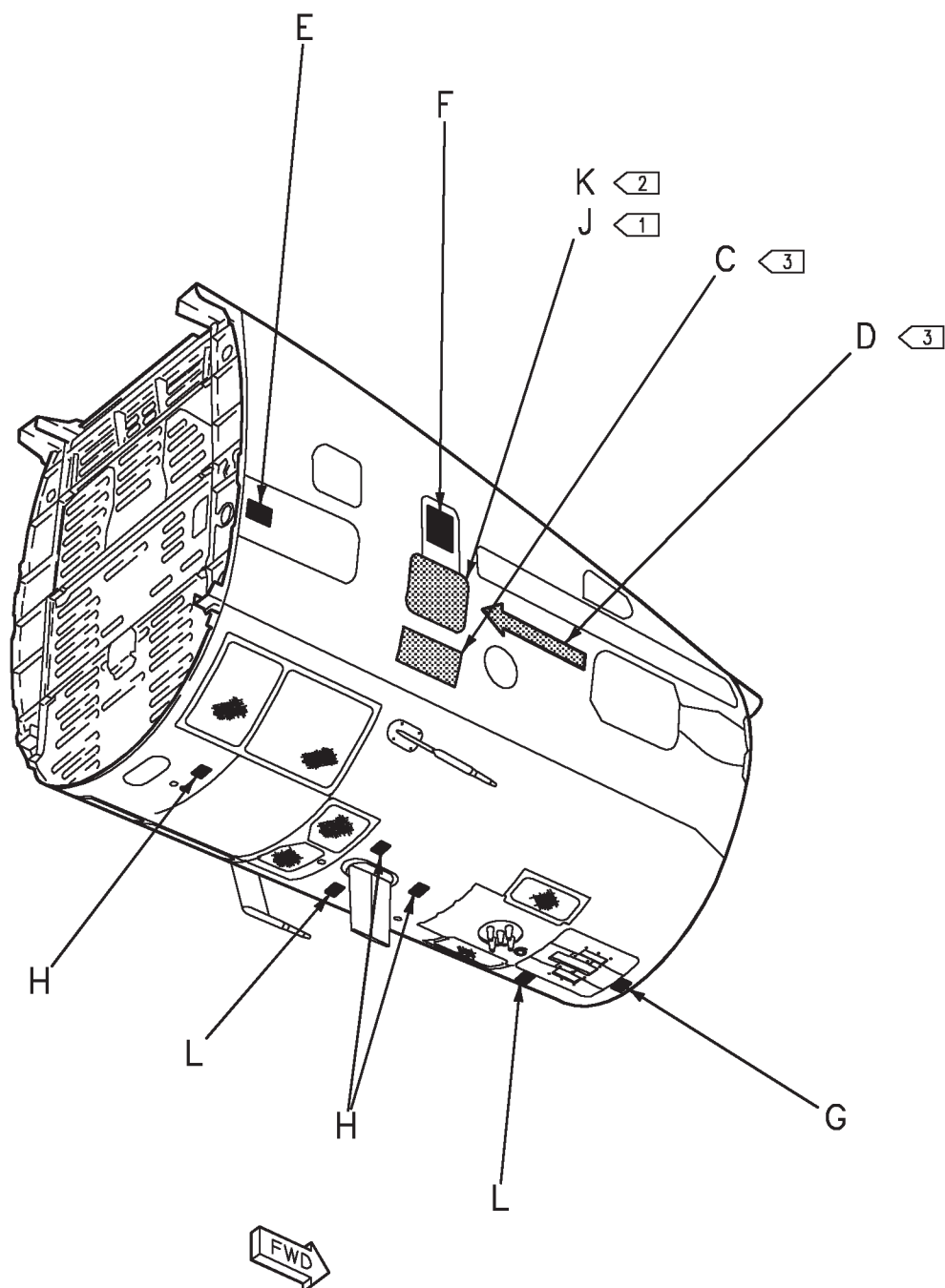


Figure 3. Instructional Markings (Sheet 2)

NO STEP

GUN HOLDBACK
INDICATOR

A

74A950304

B

74A950326

PITOT STATIC
DRAIN

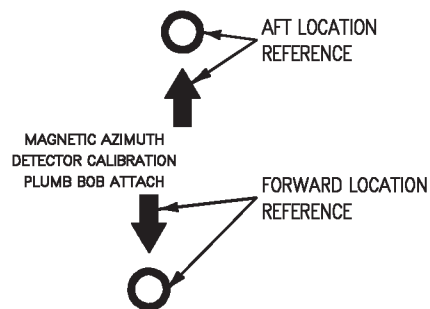
FOR EMERGENCY USE ONLY
GRASP HANDLE, EXTEND
CABLE 8 FT. AND PULL TO
JETTISON CANOPY

H

74A950345

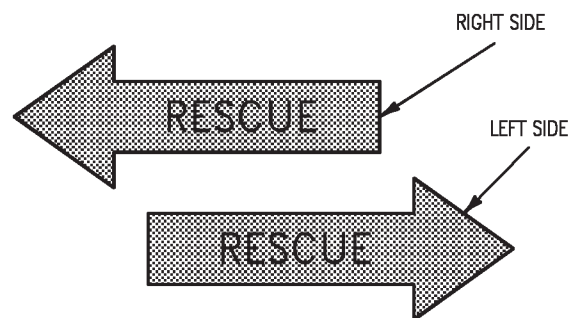
C

3 74A950314



G

74A950329



D

3 74A950311

WARNING
STAY CLEAR
GUN SCAVENGE
DOOR



GROUND (EARTH)
LOCATED INSIDE

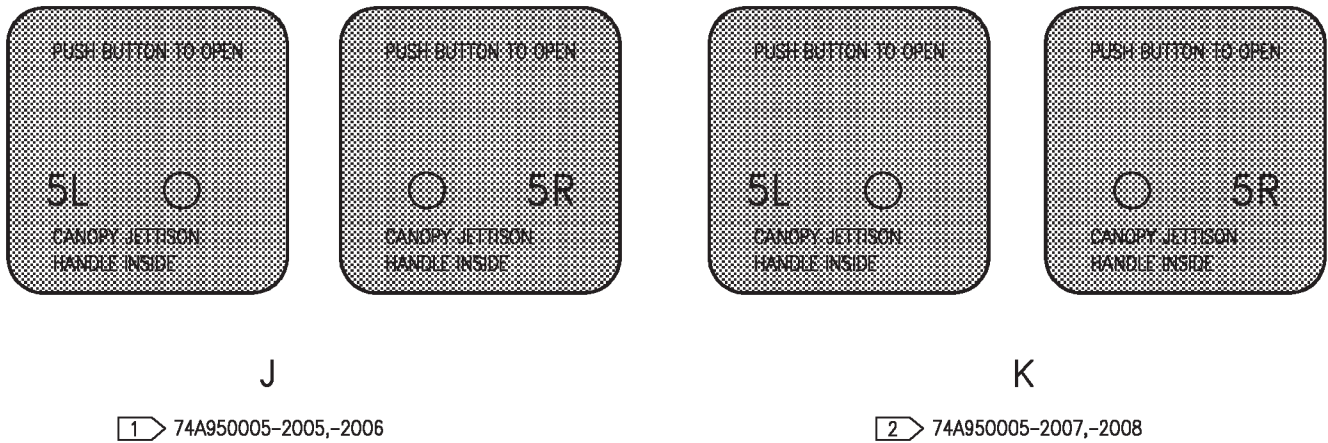
F

74A950325

E

74A950337

Figure 3. Instructional Markings (Sheet 3)



PUSH TO DISENGAGE



LEGEND

- 1 161353 THRU 161961.
- 2 161962 THRU 162477.
- 3 161353 THRU 162477.

Figure 3. Instructional Markings (Sheet 4)

ORGANIZATIONAL MAINTENANCE**AIRCRAFT CORROSION CONTROL****COCKPIT CORROSION PRONE AREAS**

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning..... | WP006 00 |
| Stripping..... | WP007 00 |
| Chemical Treatment..... | WP008 00 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Windshield, Canopy, and Cockpit Finish System..... | WP021 00 |
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Structure Repair, Forward Fuselage | A1-F18AC-SRM-220 |
| Forward Fuselage Structure Index..... | WP001 01 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |
| Seat, Canopy, Survival Equipment and Boarding Ladder | A1-F18AC-120-300 |
| Canopy Hinge Support Assembly..... | WP077 01 |
| Structure Repair, Forward Fuselage | A1-F18AE-SRM-650 |
| Structure Group Index..... | WP001 01 |

Alphabetical Index

| Subject | Page No. |
|--|-----------------|
| Instrument Panel Corrosion Protection..... | 4 |
| Introduction | 2 |
| Chemical Treatment | 2 |
| Classification of Critical Items/Areas..... | 2 |
| Cleaning..... | 2 |
| Corrosion Damage Evaluation and Limits | 2 |
| Corrosion Damage Repair | 2 |
| Canopy Hinge Support Shims..... | 2 |
| Corrosion Inspection..... | 2 |
| Corrosion Prone Areas..... | 2 |
| Corrosion Removal..... | 2 |
| Finish System and Markings..... | 2 |
| General Information | 2 |
| Stripping..... | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. The cockpit extends from fuselage station Y204.500 to fuselage station Y326.500 for both fighter and trainer configuration aircraft. Floor levels are at Z108.65, Z105.650, and Z111.650. Finish system is epoxy primer and polyurethane coating.

3. GENERAL INFORMATION.

a. All non-clad 7075-T6 material is sulfuric acid anodized.

b. All-T6 aluminum alloy sheet is less than 0.080 inch thick.

c. Types of corrosion expected are pitting and surface.

d. Fasteners are wet installed with polysulfide sealant before application of finish system.

4. CORROSION PRONE AREAS. See figures 1, 2 and 3. Corrosion prone areas are caused by one or a combination of the conditions below:

- a. Dissimilar metal contact.
- b. Water intrusion/entrapment.
- c. Metal alloy/type and use.
- d. Exposure to corrosive elements.
- e. Damaged/worn weather seals.
- f. Missing finish system.

5. CORROSION INSPECTION. (WP005 00). Visually inspect the cockpit and rear cockpit:

a. Floor drain valves for obstructions and correct operation, cockpit valve is located on centerline and rear cockpit valve is located on the left side.

b. Canopy weather seal for wear/deterioration; splines, windshield arch area, and canopy sill are suspect areas.

c. Sealant dam at forward corners of canopy at sill for wear/deterioration.

d. Finish system for damage, blisters/bubbles should be opened.

e. Insulation blankets must be kept dry and secure.

6. CLEANING. (WP006 00).

7. STRIPPING. (WP007 00).

8. CORROSION REMOVAL. (WP005 00).

9. CHEMICAL TREATMENT. (WP008 00).

10. FINISH SYSTEM AND MARKINGS. (WP011 00 and WP012 00).

11. CLASSIFICATION OF CRITICAL ITEMS/AREAS. (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

12. CORROSION DAMAGE EVALUATION AND LIMITS. (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

13. CORROSION DAMAGE REPAIR.

WARNING

MIL-S-83430 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

14. Canopy Hinge Support Shims. See figure 1, detail E. Corrosion of shims (88, 89) require replacement. However, for temporary corrosion arrestment, fillet seal around periphery of shims using MIL-S-83430 until replacement of shims can be done. For fillet sealing (A1-F18AC-SRM-200, WP011 00).

Support Equipment Required

| Part Number or Type Designation | Nomenclature |
|------------------------------------|----------------------------|
| — | Micrometer, 0 to 1 Inch |

Materials Required**NOTE**

Alternate item part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|---------------------------------|------------------|
| MIL-P-23377, TY1 | Primer |
| MIL-P-85582, TY1CL1 or CL2 | Primer |
| MIL-S-83430 CLB-4 | Sealing Compound |

a. Remove canopy hinge support assembly (85) (A1-F18AC-120-300, WP077 01).

b. Remove plate (87).

c. Remove corrosion damaged shims (88, 89).

d. Inspect canopy hinge support (90) for corrosion damage.

e. Apply finish system as required to canopy hinge support (90), plates (86, 87) and canopy hinge support assembly (85) (A1-F18AC-SRM-500, WP021 00).

f. Fabricate shim (88) from 0.062 inch thick 5052-H39 aluminum laminate material using old shim as template.

g. Fabricate shim (89) from 0.063 inch thick 7075-T6 aluminum alclad material using old shim as template.

CAUTION

Make sure to maintain original shim thickness when installing new shims to prevent damage to canopy.

h. Measure total thickness of removed shims (88, 89) using a micrometer.

i. Peel laminate from fabricated shim (88) as required, to maintain existing thickness of removed shims.

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

j. Apply two coats of MIL-P-23377, Type 1, Class 1 primer to shims (88, 89). For primer preparation and application (WP011 00).

k. Position shims (88, 89) on canopy hinge support (90).

l. Position plate (87) on shims (88, 89).

m. Install canopy hinge support assembly (85) (A1-F18AC-120-300, WP077 01).

WARNING

Sealing compound is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

n. Fillet seal around periphery of shims using MIL-S-83430 sealing compound (A1-F18AC-SRM-200, WP011 00).

15. INSTRUMENT PANEL CORROSION PROTECTION.

16. Bare metal surfaces on side panels and instruments need protection from corrosion. Application of corrosion preventive compound should retard corrosion and improve electrical bond.

Support Equipment Required

None

Materials Required

| Specification or Part Number | Nomenclature |
|---------------------------------|----------------------------------|
| MIL-C-81309 TY2CL2 | Corrosion Preventive Compound |
| 020X413 | Cleaning Compound |

Materials Required (Continued)

| Specification or Part Number | Nomenclature |
|---------------------------------|--------------|
| CCC-C-440 TYPE 1 CLASS 1 | Cheesecloth |

WARNING

Cleaning compound is flammable liquid and vapor. May cause allergic respiratory and skin reaction. May cause eye, skin and respiratory irritation. Keep away from heat, sparks, and flame. Do not breathe dust (vapor, mist, gas). Use only with adequate ventilation. Keep container closed. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

a. Clean bare metal surfaces using clean cheesecloth moistened with cleaning compound.

WARNING

Corrosion preventive compound is toxic. Avoid breathing of vapors. Avoid contact skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

b. Apply thin coat of corrosion preventive compound to bare surfaces.

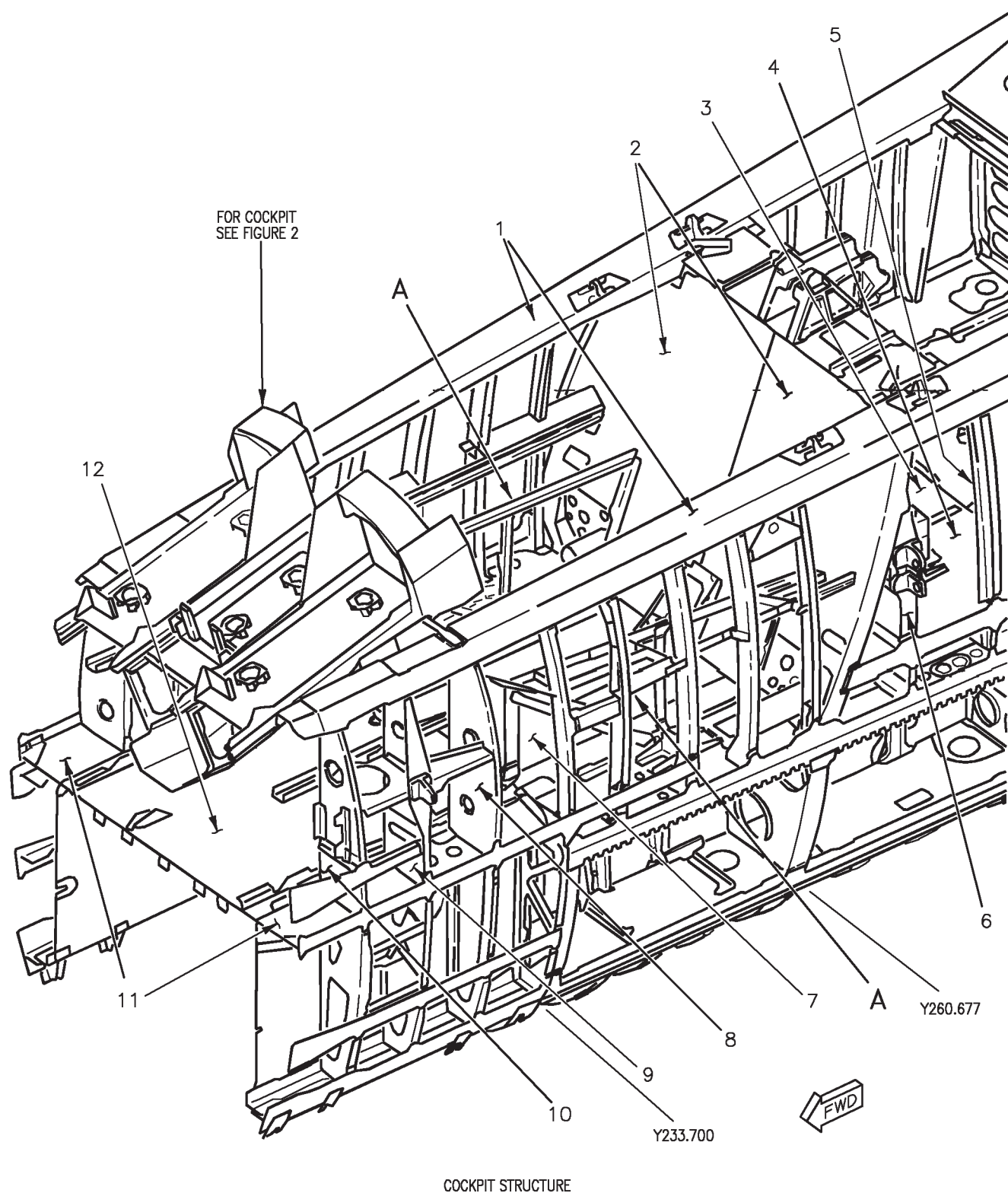


Figure 1. Corrosion Prone Areas (Sheet 1)

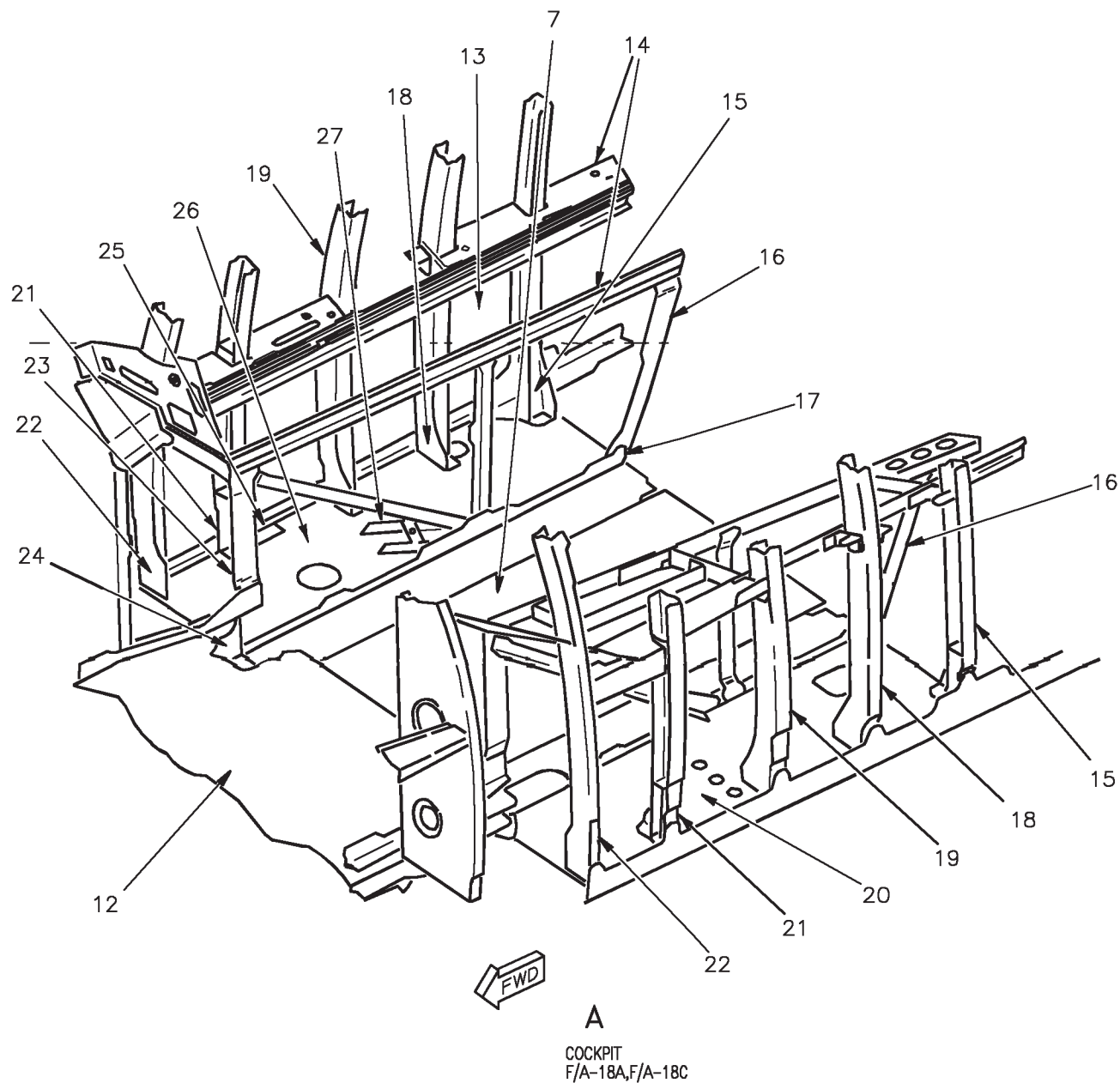


Figure 1. Corrosion Prone Areas (Sheet 2)

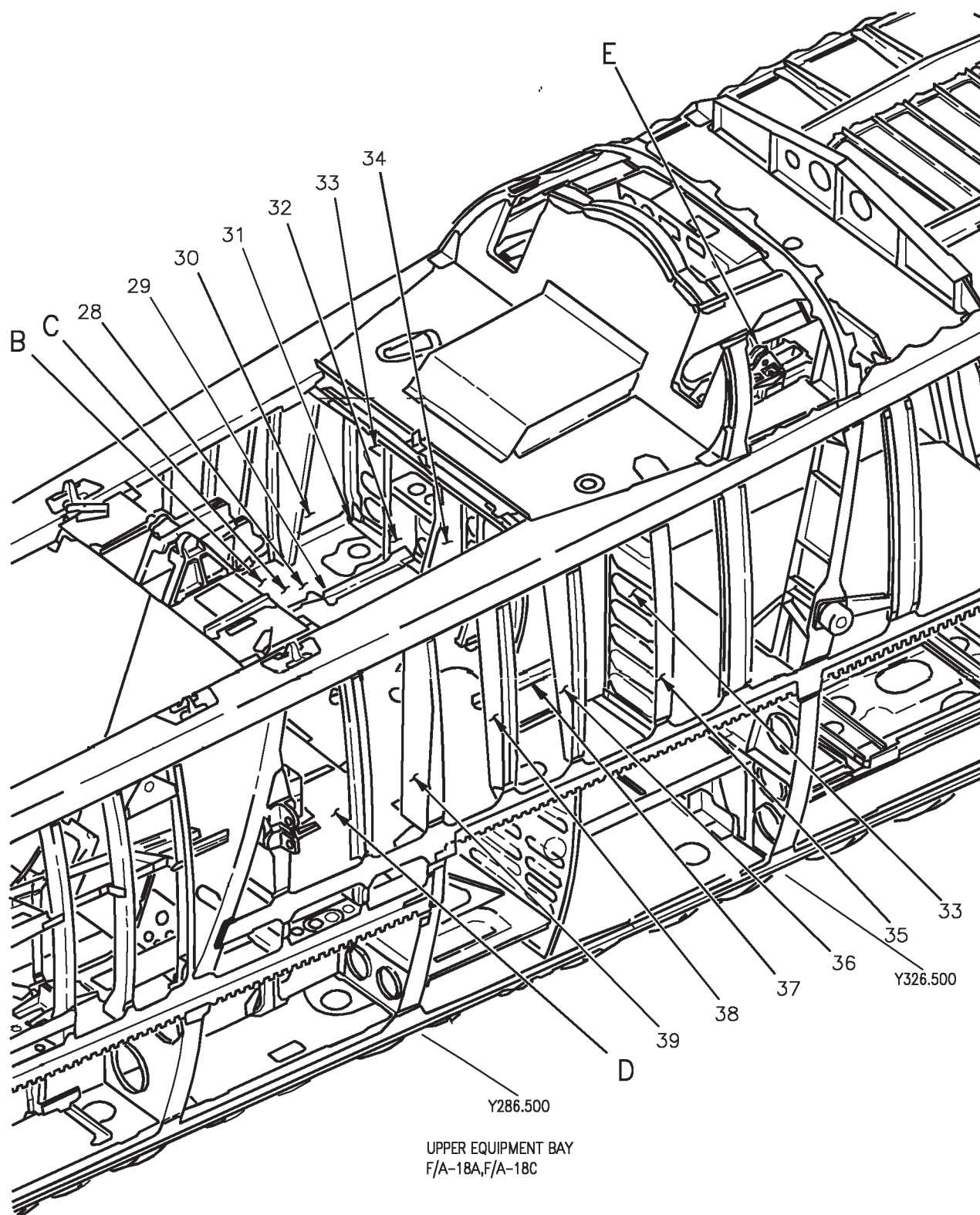


Figure 1. Corrosion Prone Areas (Sheet 3)

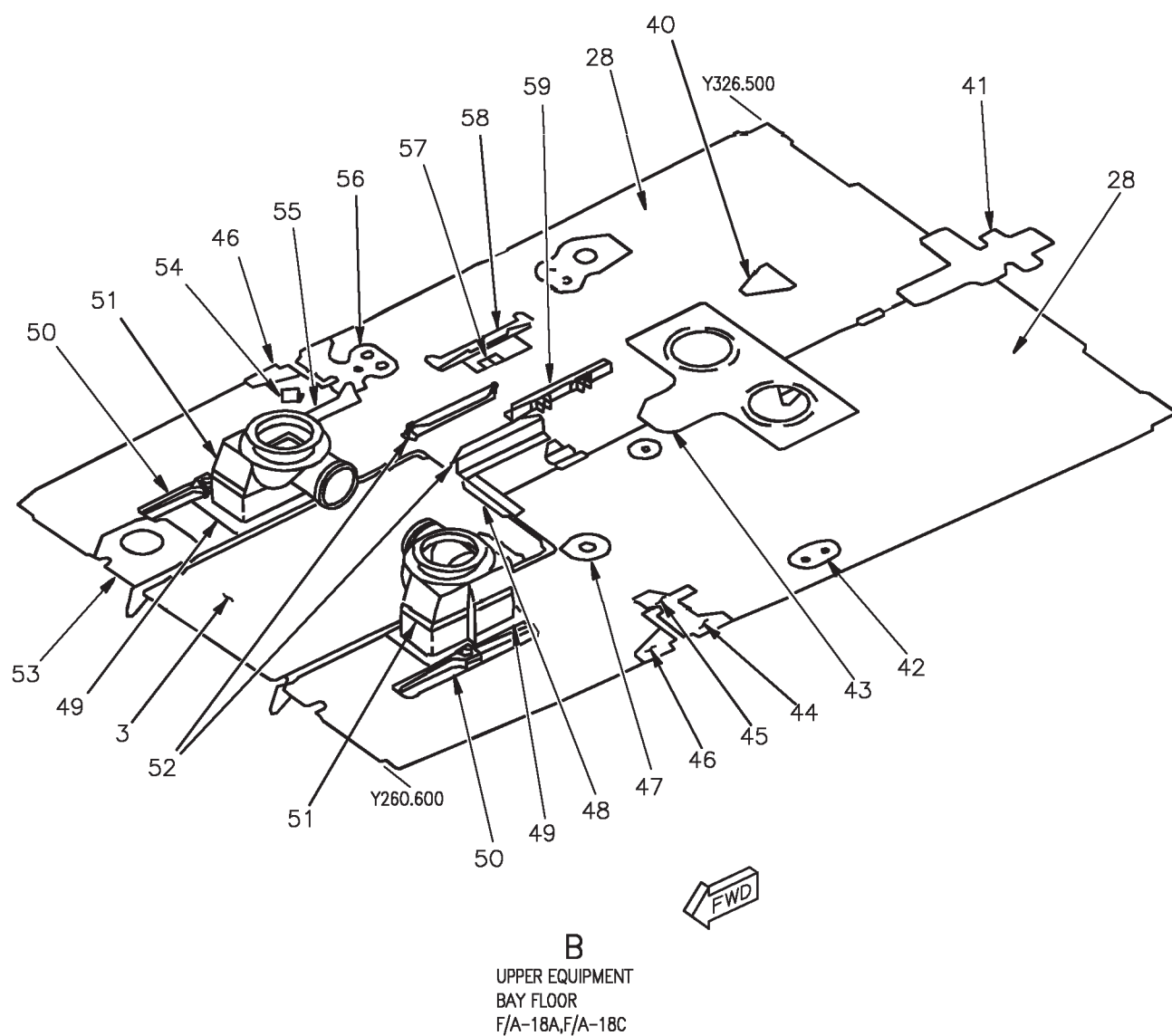


Figure 1. Corrosion Prone Areas (Sheet 4)

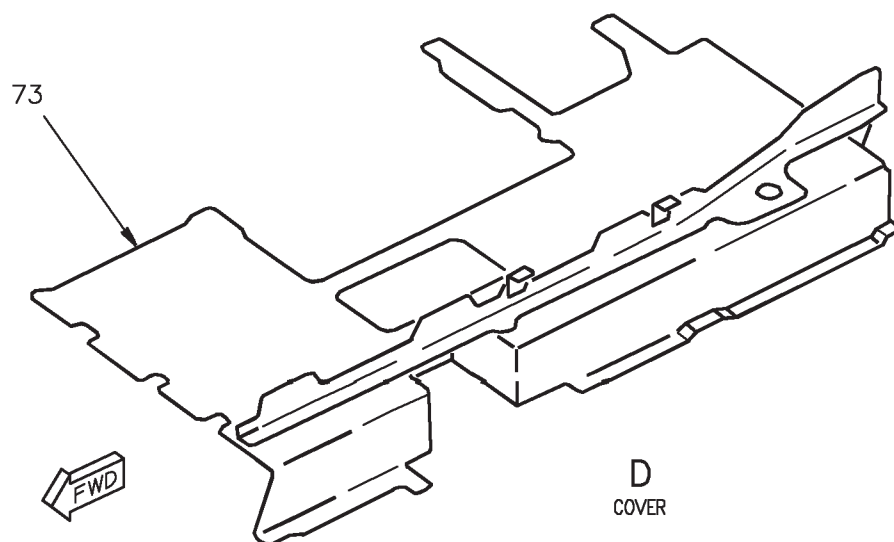
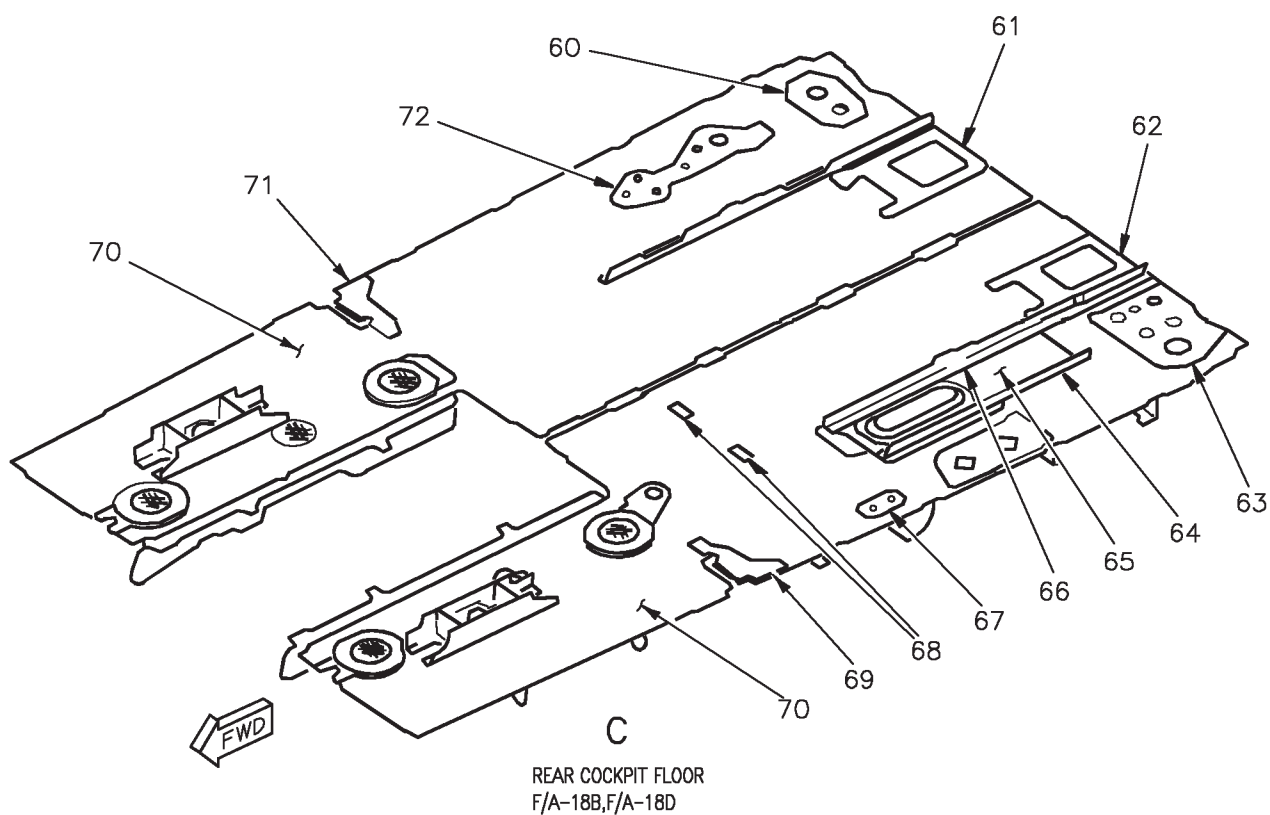


Figure 1. Corrosion Prone Areas (Sheet 5)

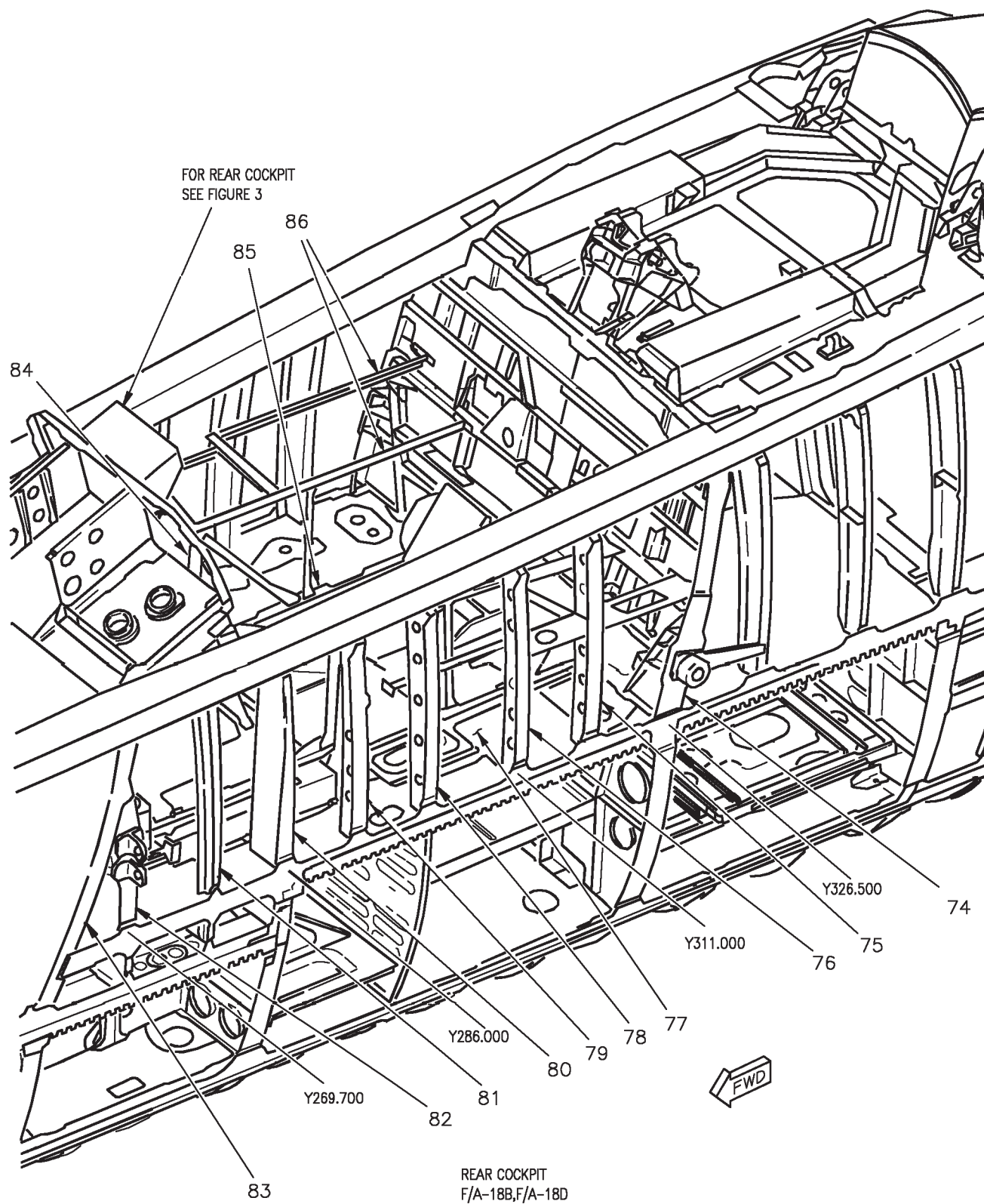


Figure 1. Corrosion Prone Areas (Sheet 6)

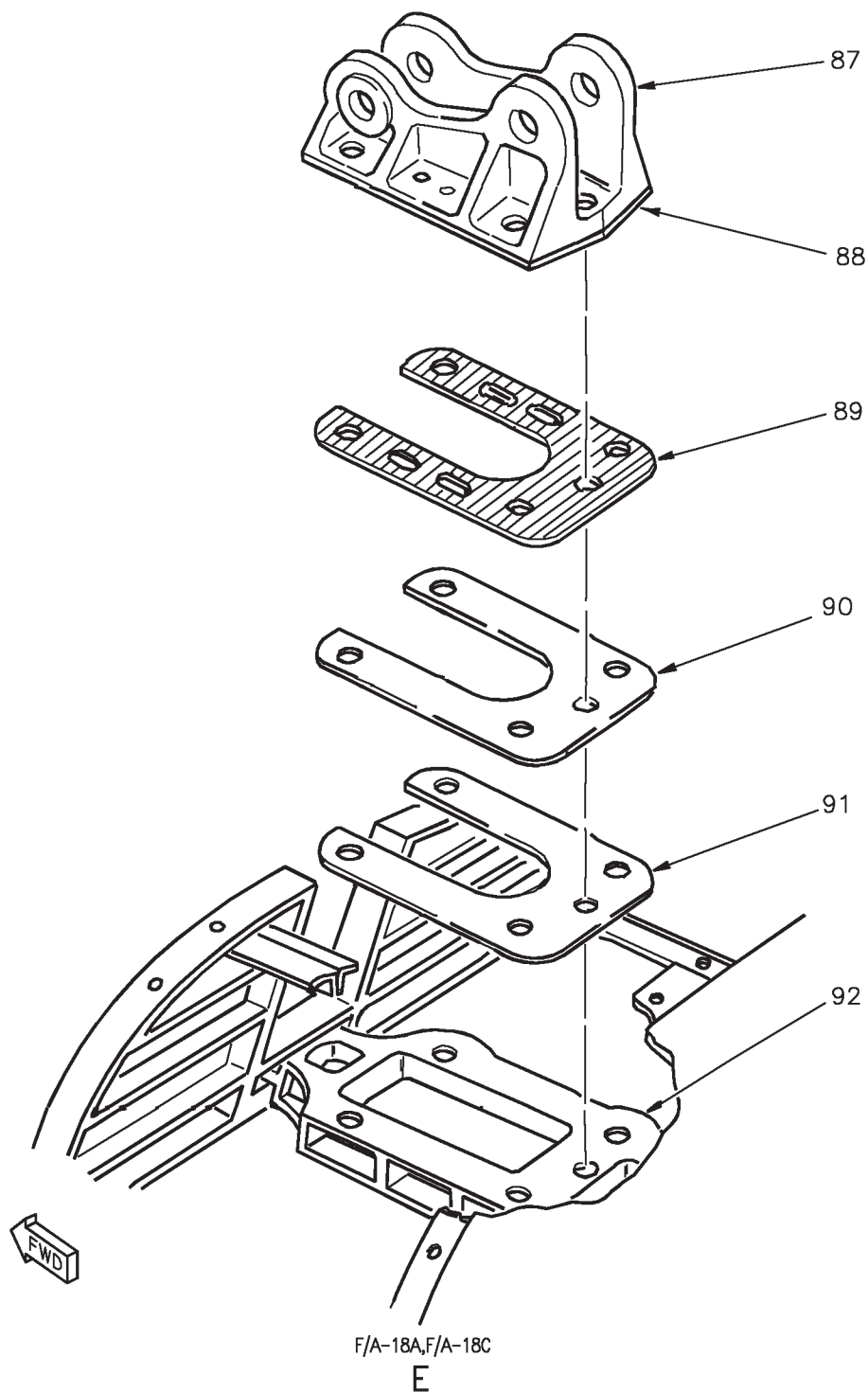


Figure 1. Corrosion Prone Areas (Sheet 7)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|---|
| 1 | Sill | 7075-T7351 Al Aly, Plate | Surface |
| 2 | Bulkhead | 7075-T7352 Al Aly, Forging | Pitting |
| 3 | Web | 7075-T6 Alclad, Sheet | Surface |
| 4 | Skin | 7075-T6 Alclad, Sheet | Surface on lands. Pitting elsewhere. |
| 5 | Former | 7075-T6 Alclad, Sheet | Surface |
| 6 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 7 | Web | 7075-T6 Alclad, Sheet | Pitting |
| 8 | Former | 7075-T6 Alclad, Sheet | Surface |
| 9 | Former | 7075-T6 Alclad, Sheet | Surface |
| 10 | Former | 7075-T6 Alclad, Sheet | Surface |
| 11 | Web | 7075-T6 Alclad, Sheet | Surface |
| 12 | Web | 7075-T6 Al Aly, Sheet | Pitting |
| 13 | Skin | 7075-T76 Alclad, Sheet | Surface. Pitting in chemmill areas. |
| 14 | Tee | 7075-T6 Alclad | Surface |
| 15 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 16 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 17 | Longeron | 7075-T76 Al Aly, Extrusion | Pitting |
| 18 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 19 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 20 | Floor | 7075-T6 Alclad, Sheet | Surface |
| 21 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 22 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 23 | Beam | 7075-T73511 Al Aly | Surface |

Figure 1. Corrosion Prone Areas (Sheet 8)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------------|---|
| 24 | Bulkhead | 7075-T7351 Al Aly, Plate | Pitting |
| 25 | Terminal Board | 6061-T6 Al Aly/Cadmium Plated Steel | Pitting/Rusting |
| 26 | Web | 7075-T6 Alclad, Sheet | Surface |
| 27 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 28 | Floor | 7075-T6 Alclad, Sheet | Pitting |
| 29 | Stiffener | 7075-T6 Alclad, Sheet | Surface |
| 30 | Skin | 7075-T6 Alclad, Sheet | Surface on lands. Pitting elsewhere. |
| 31 | Angle | 7075-T76 Alclad, Sheet | Surface |
| 32 | Stiffener | 7075-T6 Al Aly, Sheet | Pitting |
| 33 | Web | 7075-T6 Alclad, Sheet | Surface |
| 34 | Stiffener | 7075-T6 Al Aly, Sheet | Pitting |
| 35 | Tee | 7075-T73 Al Aly, Extrusion | Pitting |
| 36 | Former | 7075-T76 Alclad, Sheet | Surface |
| 37 | Former | 7075-T6 Alclad, Sheet | Surface |
| 38 | Stiffener | 7075-T6 Alclad, Sheet | Surface |
| 39 | Bulkhead | 7075-T7351 Al Aly, Sheet | Pitting |
| 40 | Gusset | 7075-T6 Alclad, Sheet | Surface |
| 41 | Doubler | 7075-T76 Alclad, Sheet | Surface |
| 42 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 43 | Doubler | 7075-T76 Alclad, Sheet | Surface |
| 44 | Splice Plate | 7075-T76 Alclad, Sheet | Surface |
| 45 | Splice Plate | 7075-T6 Alclad, Sheet | Surface |
| 46 | Splice Plate | 7075-T6 Alclad, Sheet | Surface |
| 47 | Retainer | 7075-T6 Alclad, Sheet | Surface |

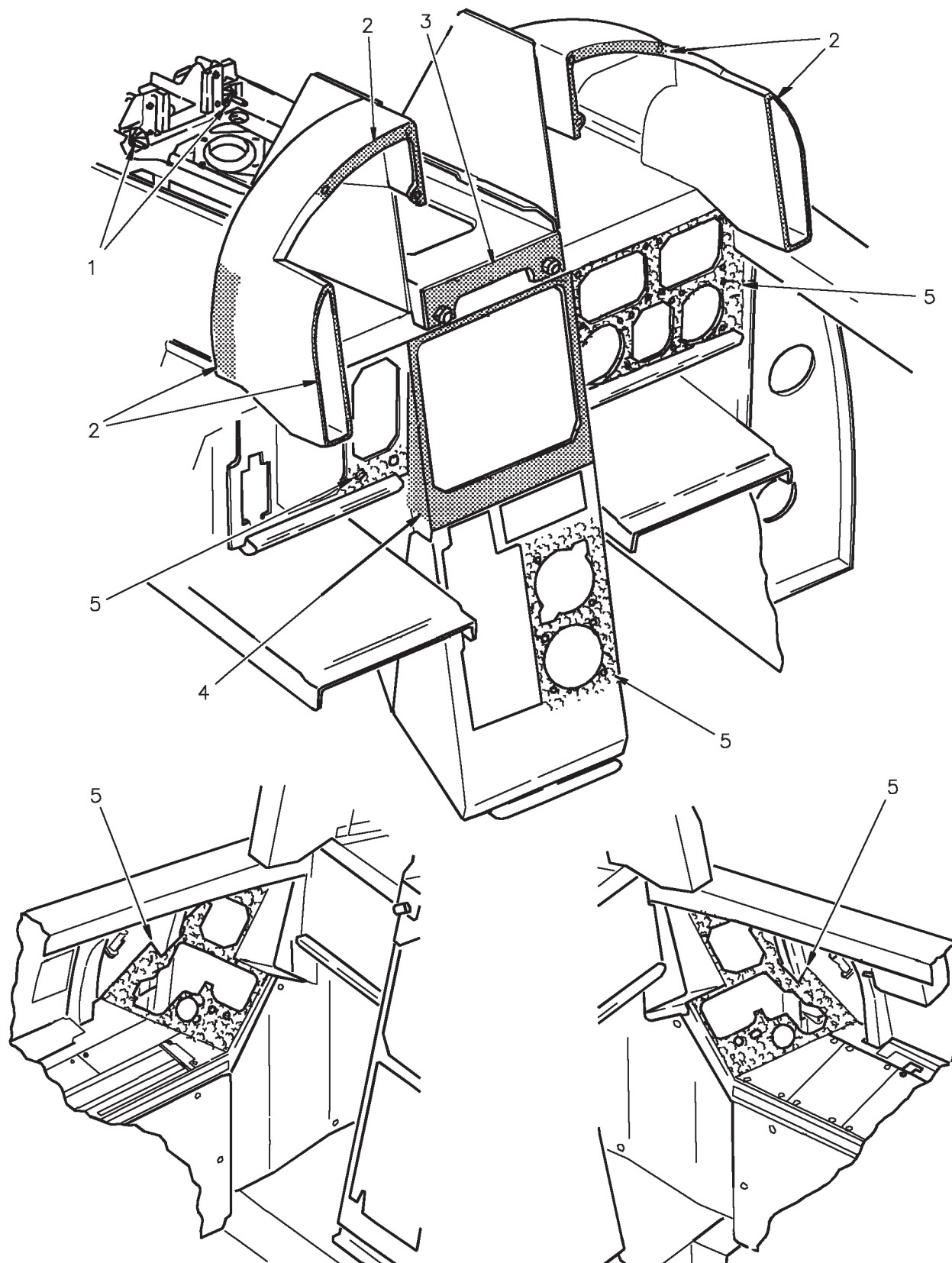
Figure 1. Corrosion Prone Areas (Sheet 9)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------|----------------|
| 48 | Splice Plate | 7075-T6 Alclad, Sheet | Surface |
| 49 | Doubler | 7075-T76 Alclad, Sheet | Surface |
| 50 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 51 | Plenum Assy | 6061-T62 Al Aly, Sheet | Pitting |
| 52 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 53 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 54 | Bracket | 2024-T81 Alclad, Sheet | Surface |
| 55 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 56 | Splice Plate | 7075-T76 Alclad, Sheet | Surface |
| 57 | Bonding Strip | Beryllium Copper, Sheet | Surface |
| 58 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 59 | Channel | 7075-T6 Alclad, Sheet | Surface |
| 60 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 61 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 62 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 63 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 64 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 65 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 66 | Channel | 7075-T6 Alclad, Sheet | Surface |
| 67 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 68 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 69 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 70 | Web | 7075-T6 Alclad, Sheet | Pitting |
| 71 | Splice Plate | 7075-T76 Alclad, Sheet | Surface |
| 72 | Doubler | 7075-T6 Alclad, Sheet | Surface |

Figure 1. Corrosion Prone Areas (Sheet 10)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|---------------------------------------|
| 73 | Cover | 7075-T6 Alclad, Sheet | Surface |
| 74 | Bulkhead | 7075-T7352 Al Aly, Sheet | Surface |
| 75 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 76 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 77 | Skin | 7075-T6 Alclad, Sheet | Surface. Galvanically accelerated. |
| 78 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 79 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 80 | Bulkhead | 7075-T7351 Al Aly, Plate | Pitting |
| 81 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 82 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 83 | Bulkhead | 7075-T7352 Al Aly, Forging | Pitting |
| 84 | Beam | 7075-T73511 Al Aly | Surface |
| 85 | Longeron | 7075-T76 Al Aly | Surface |
| 86 | Tee | 7075-T6 Alclad | Surface |
| 87 | Hinge Support | 7075-T7354 Al Aly, Forging | Pitting |
| 88 | Plate | 302 CRES, Sheet | Pitting |
| 89 | Plate | 302 CRES, Sheet | Pitting |
| 90 | Shim | 5052-H39 AL, Laminate | Surface |
| 91 | Shim | 7075-T6 Alclad, Sheet | Surface |
| 92 | Support | 7075-T7351 Al Aly, Plate | Surface |

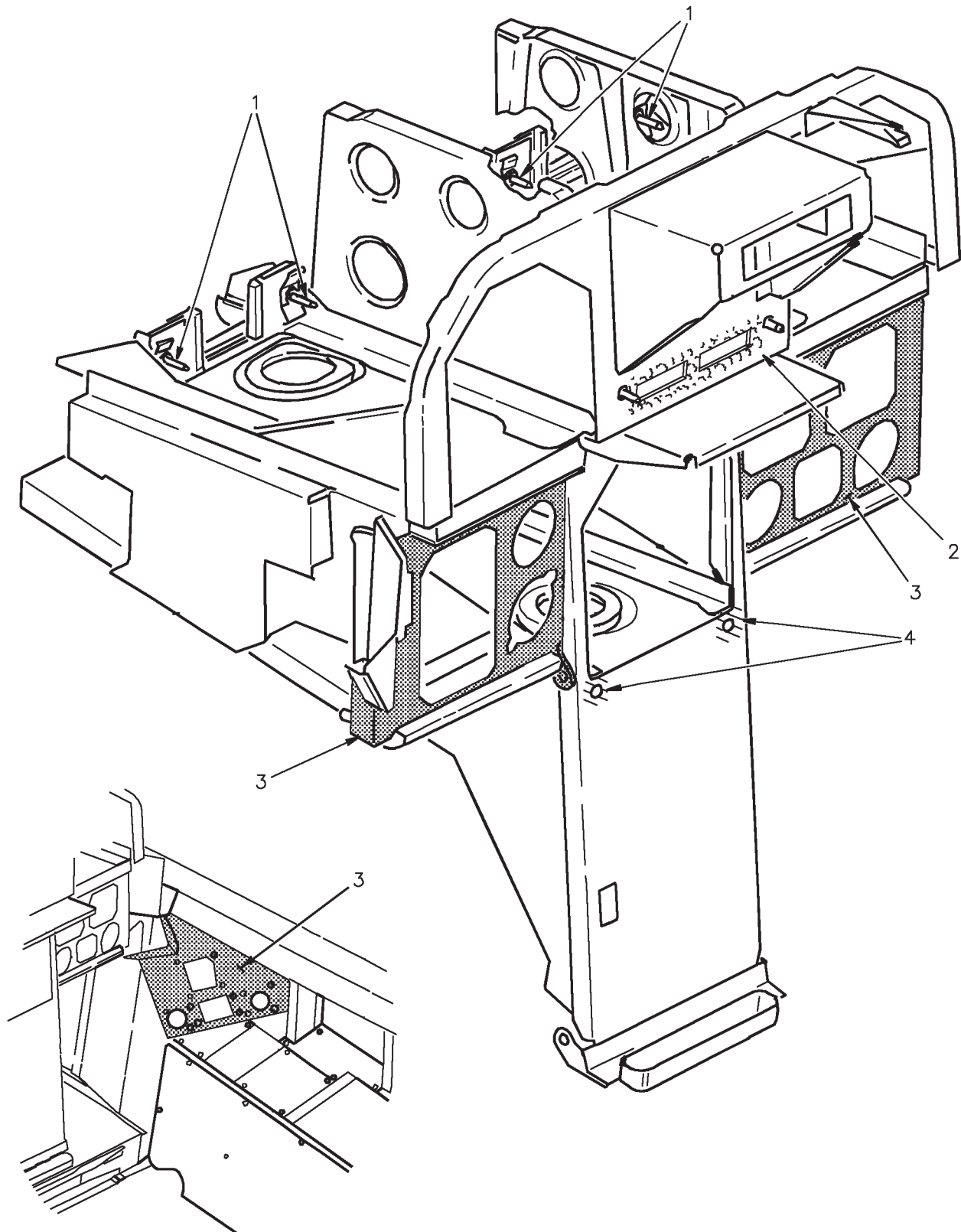
Figure 1. Corrosion Prone Areas (Sheet 11)



**Figure 2. Cockpit Main Instrument Panel and Right Vertical Consoles,
Corrosion Prone Areas (Sheet 1)**

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|--|---------------------------------|-----------------|
| 1 | Electrical Grounding Washer | Tin Plating on Beryllium Copper | Surface |
| 2 | Support, Electrical Bonding Surface | Tin Plating on A356-T61 Casting | Surface/Pitting |
| 3 | Mount, Electrical Bonding Surface | Tin Plating on A356-T61 Casting | Surface/Pitting |
| 4 | Instrument Panel, Electrical Bonding Surface | Tin Plating on 7075-T7351 Plate | Surface/Pitting |
| 5 | Instrument Panel, Electrical Bonding Surface | Tin Plating on A345-T61 Casting | Surface/Pitting |

Figure 2. Cockpit Main Instrument Panel and Right Vertical Consoles, Corrosion Prone Areas (Sheet 2)



**Figure 3. Rear Cockpit Main Instrument Panel and Right Vertical Consoles,
Corrosion Prone Areas (Sheet 1)**

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|--|-------------------------------------|-----------------|
| 1 | Electrical Grounding Washer | Tin Plating on Beryllium Copper | Surface |
| 2 | Instrument Panel, Electrical Bonding Surface | Tin Plating on 7075-T6 Alclad Sheet | Surface/Pitting |
| 3 | Instrument Panel, Electrical Bonding Surface | Tin Plating on A356-T61 Casting | Surface/Pitting |
| 4 | Instrument Panel, Electrical Bonding Surface | Tin Plating on 7075-T6 Alclad Plate | Surface/Pitting |

Figure 3. Rear Cockpit Main Instrument Panel and Right Vertical Console, Corrosion Prone Areas (Sheet 2)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

WINDSHIELD, CANOPY, AND COCKPIT SEALS AND SEALING

Reference Material

| | |
|--|------------------|
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application | WP011 00 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |

Alphabetical Index

| Subject | Page No. |
|--------------------|----------|
| Introduction | 1 |
| Sealing..... | 1 |
| Seals | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

when graphite epoxy structure or form in place seals are used.

2. Sealing of the windshield, canopy, and cockpit is for cockpit pressure containment and corrosion control. Sealing prevents loss of pressure, moisture entry, dissimilar metal contact, and provides a barrier between structure, skin, and the elements.

3. **SEALING.** Use MIL-S-83430, class B-4 sealing compound (WP010 00 and A1-F18AC-SRM-200, WP011 00), see figures 1 and 2. Use class B for fay, form in place, butt joint, and fastener sealing. MIL-S-8802 or MIL-S-81733 is the alternate, except

NOTE

Fay surface and butt joint sealing may be done simultaneously by being sure sealant squeeze out from the fay surface fills the butt joint gap.

a. The periphery of all external permanent skins and structure are fay surface and butt joint sealed.

b. The periphery of all permanent skins and structure in the cockpit are pressure sealed.

c. The periphery of all transparency joints are fay and fillet sealed.

d. All permanent fasteners except aluminum rivets, see step e below, installed in mold line or other categorized areas are installed wet with sealing compound.

e. Aluminum rivets in mold line surfaces and other categorized areas are installed with primer or sealant, except fast rivets, which are wet installed with primer.

f. Inner surface of all fasteners which pass through mold line on windshield, canopy, and cockpit are overcoated with sealant.

4. **SEALS.** See figures 1 and 2.

a. Windshield.

(1) Form in place seal (A), (B) and (C) windshield de-ice fairing and nose barrel.

(2) After curing of adhesive applied in figure 1, view C, check sealing surface for any abrupt steps or waviness.

NOTE

There shall be no abrupt steps and any waviness shall have a minimum of 0.75 from peak to peak with a maximum depth of 0.03.

(3) If required, hand sand cured adhesive to maintain parting line between windshield and canopy sill for opening of windshield.

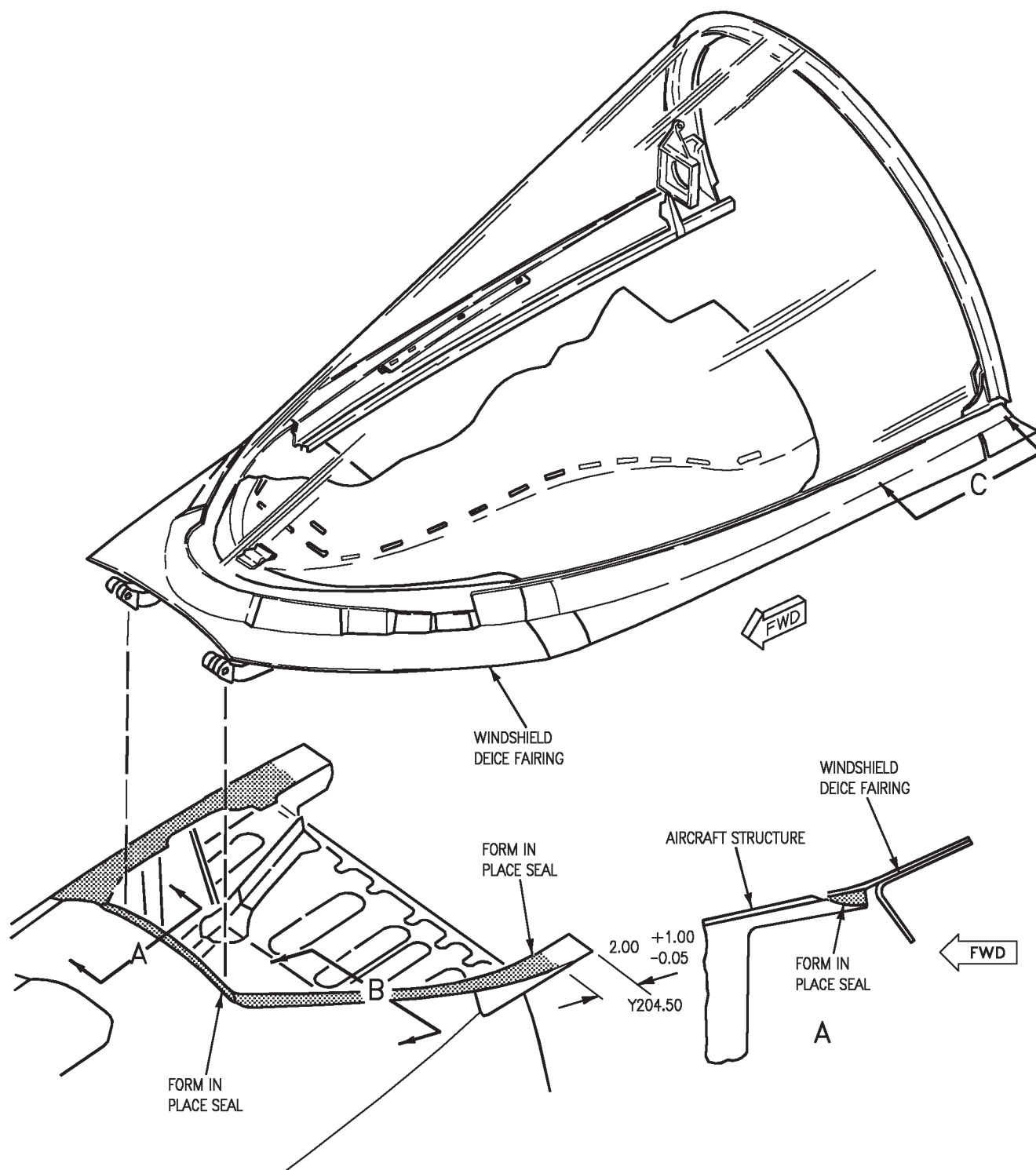


Figure 1. Seals and Sealing (Sheet 1)

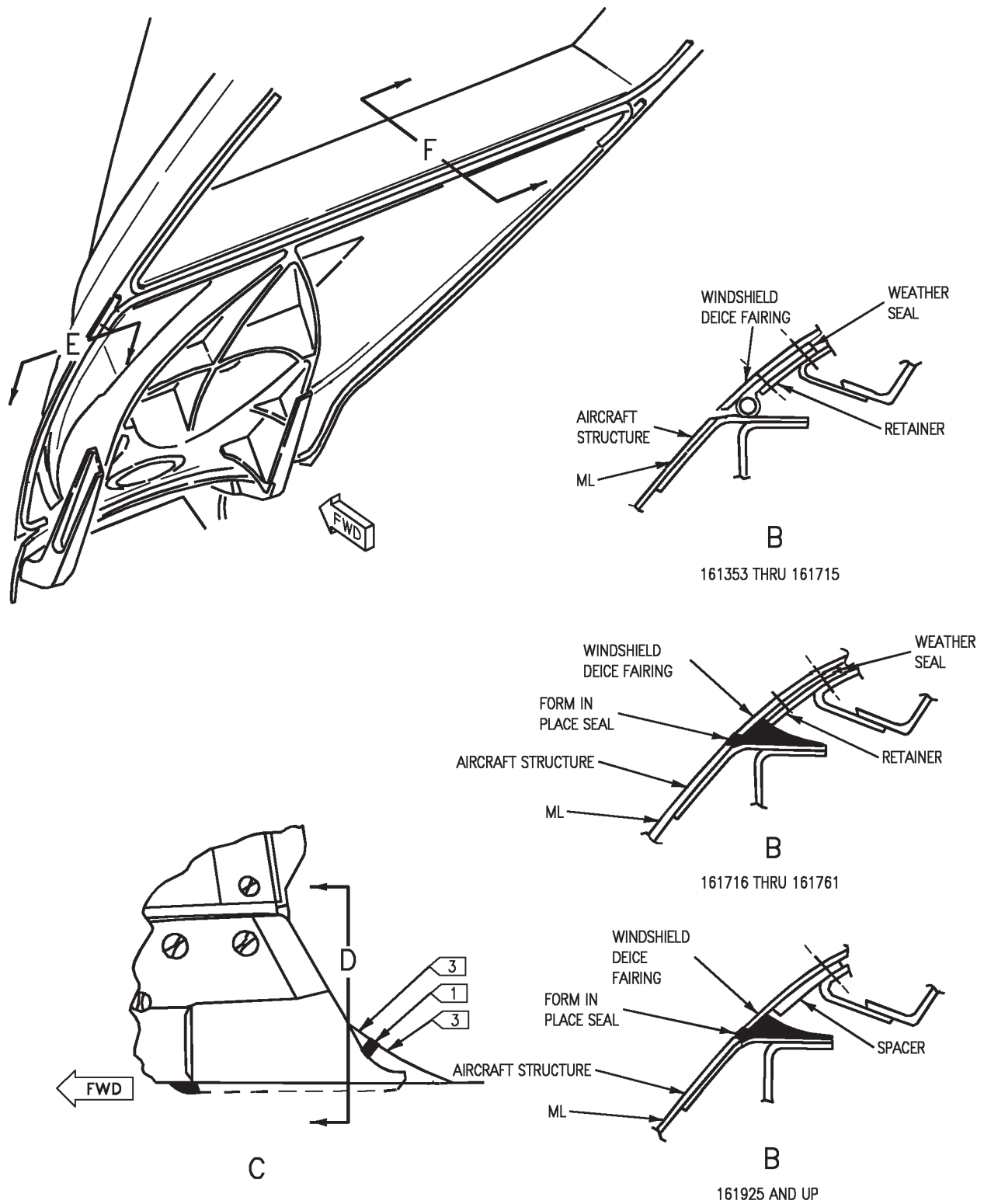
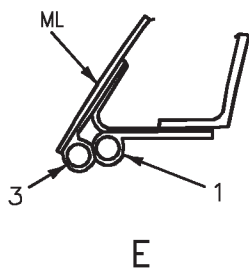
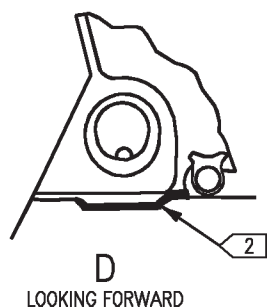
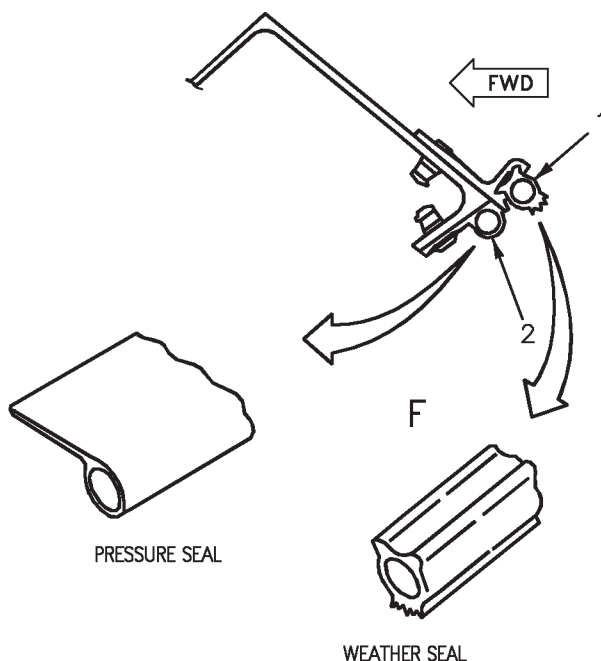


Figure 1. Seals and Sealing (Sheet 2)



| INDEX NO | NOMENCLATURE |
|----------|---------------|
| 1 | PRESSURE SEAL |
| 2 | WEATHER SEAL |
| 3 | WEATHER SEAL |



LEGEND

- 1 APPLY THIN FILM OF PARTING AGENT TO WINDSHIELD SEALING SURFACE. APPLY FORM IN PLACE SEAL (WP010 00). NO SPACERS SHALL BE USED.
- 2 APPLY THIN FILM OF PARTING AGENT TO WINDSHIELD SEALING SURFACE. APPLY UP TO 6.5 MIL (.0065) THICK SPACER RINGS. APPLY FORM IN PLACE SEAL (WP010 00).
- 3 AFTER FORM IN PLACE SEAL IS INSTALLED, APPLY EA934NA ADHESIVE PER (A1-F18AC-SRM-200, WP011 00), TO EITHER THE CANOPY OR WINDSHIELD SILL TO GET A SMOOTH CANOPY SEALING SURFACE.

Figure 1. Seals and Sealing (Sheet 3)

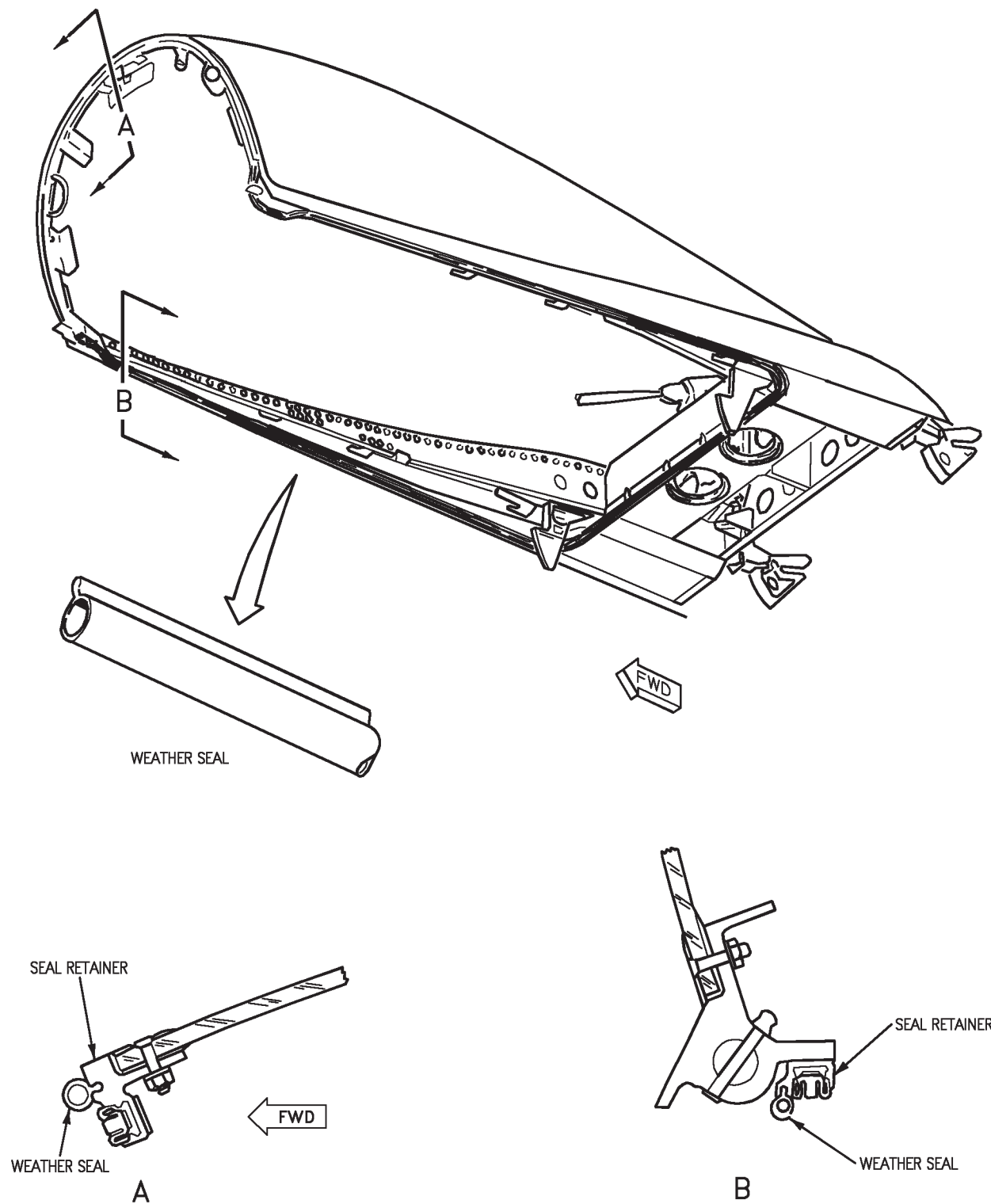


Figure 2. Seals and Sealing (Sheet 1)

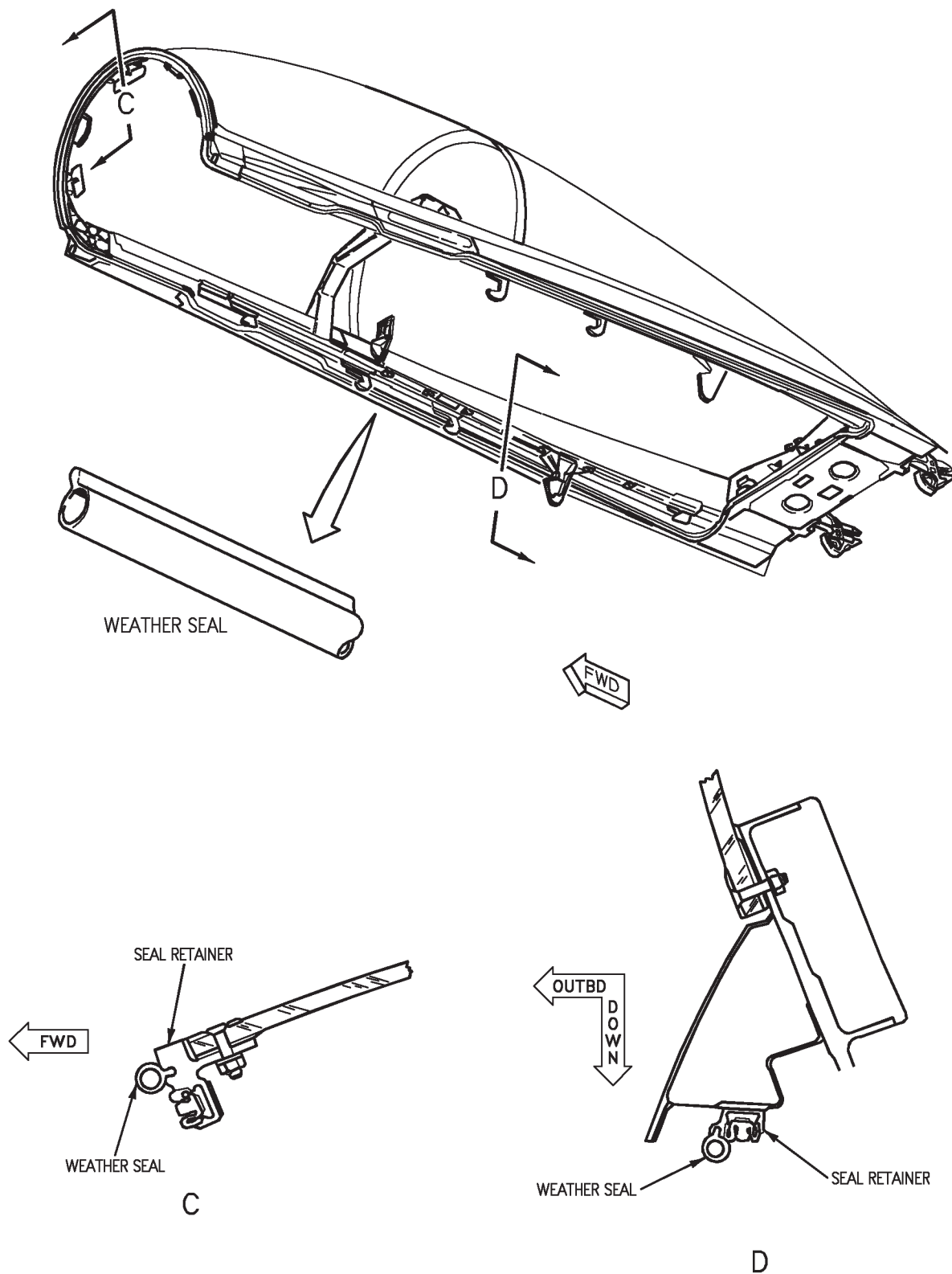


Figure 2. Seals and Sealing (Sheet 2)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

WINDSHIELD, CANOPY, AND COCKPIT FINISH SYSTEM

This WP supersedes WP021 00, dated 1 February 1995.

Reference Material

| | |
|---------------------------------|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |

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| Aircraft Refinishing | 3 |
| Finish System | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Windshield, canopy, and cockpit structure and skin including; floors, walls, instrument panels, consoles, foot pedals, and control column are aluminum.

Materials Required (Continued)

NOTE

Alternate item part numbers are shown indented.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

MIL-P-23377 TY1

Primer

Specification
or Part Number

Nomenclature

MIL-P-85582,
TY1CL1 or CL2

Primer

MIL-P-23377, TY2

Primer

MIL-P-85582,
TY2CL1

Primer

MIL-C-83286

Aliphatic Polyurethane
Enamel

MIL-C-85285, TY1

Coating,
Polyurethane,
High Solids

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|---------|---|
| 822X430 | Antichafe Compound Base, Gray, FED-STD-595 Color No. 36375 |
| 822X694 | Antichafe Compound Base, Gray, FED-STD-595 Color No. 36320 |
| 910X377 | Antichafe Compound, Curing Solution |

3. FINISH SYSTEM. See figure 1.**WARNING**

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

b. One coat MIL-P-23377, Type 2, Class 1 primer on mold line surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) Black, FED-STD-595 color no. 37038, aliphatic polyurethane enamel:

(a) Canopy sills.

(b) Glare shield.

(c) Inner surface of windshield and canopy frames.

(d) Upper instrument panel.

(e) Canopy deck and equipment tunnel.

(2) On 163985 AND UP, black, FED-STD-595 color no. 37038, aliphatic polyurethane enamel:

- (a) Map and data cases.
- (b) Night vision goggles stowage cases.
- (c) Side liner assemblies.
- (d) Chaff/flare handle assembly.

(3) Gray, FED-STD-595 color no. 36231, aliphatic polyurethane enamel:

- (a) Instrument panel.
- (b) Consoles.
- (c) Floors.
- (d) Walls.

(e) Foot pedals.

(f) Control column.

(4) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.

(5) Gray, FED-STD-595 color no. 36320, aliphatic polyurethane enamel.

(6) Gray, FED-STD-595 color no. 35237, aliphatic polyurethane enamel.

d. Apply antichafe coating to area shown on figure. Color of antichafe coating to match adjacent area. For preparation and application of antichafe coating (WP012 00).

4. AIRCRAFT REFINISHING. On 161353 THRU 161925, if complete aircraft requires refinishing, use finish system color diagram shown on figure 1 for 161926 THRU 163175.

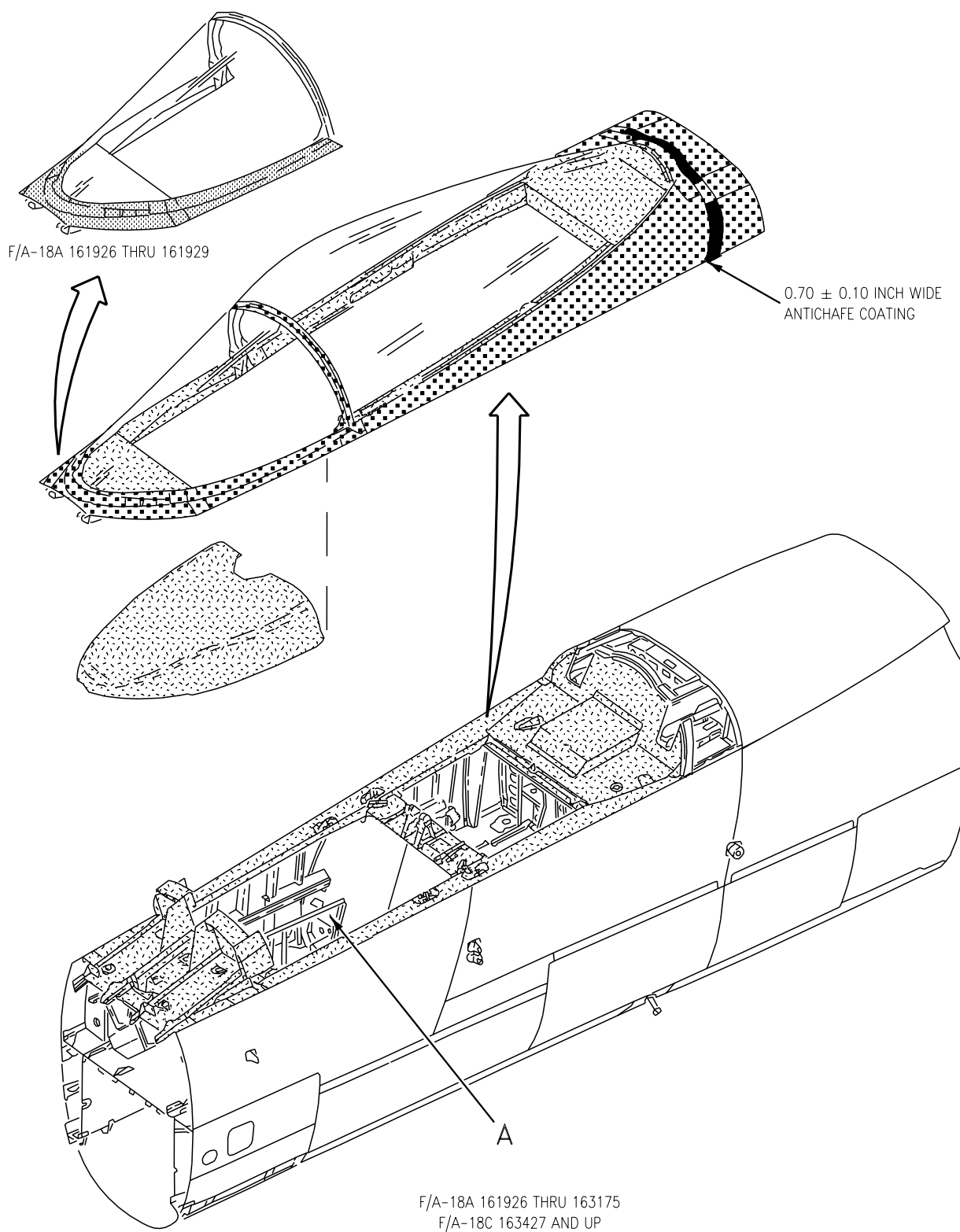


Figure 1. Finish System (Sheet 1)

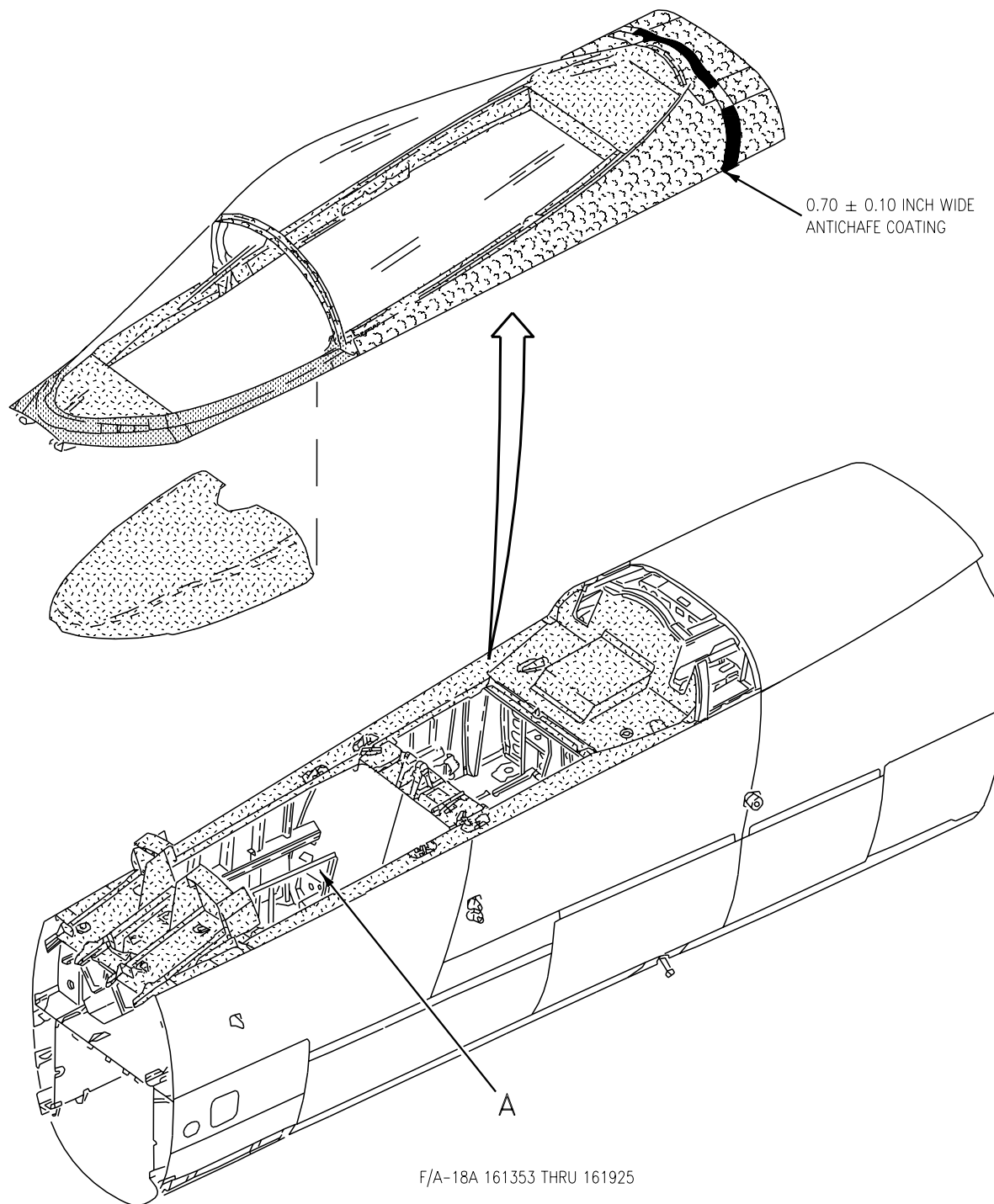
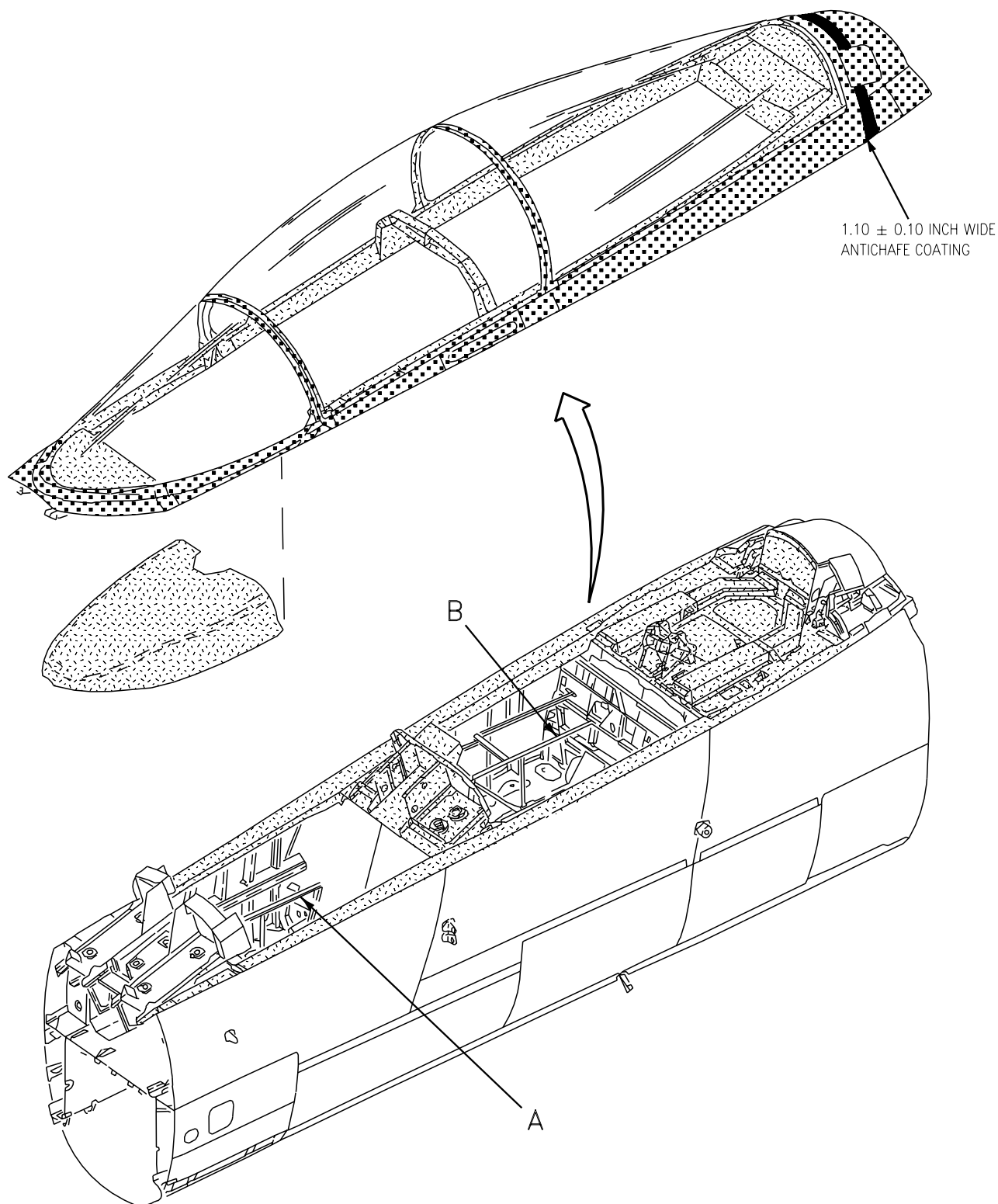
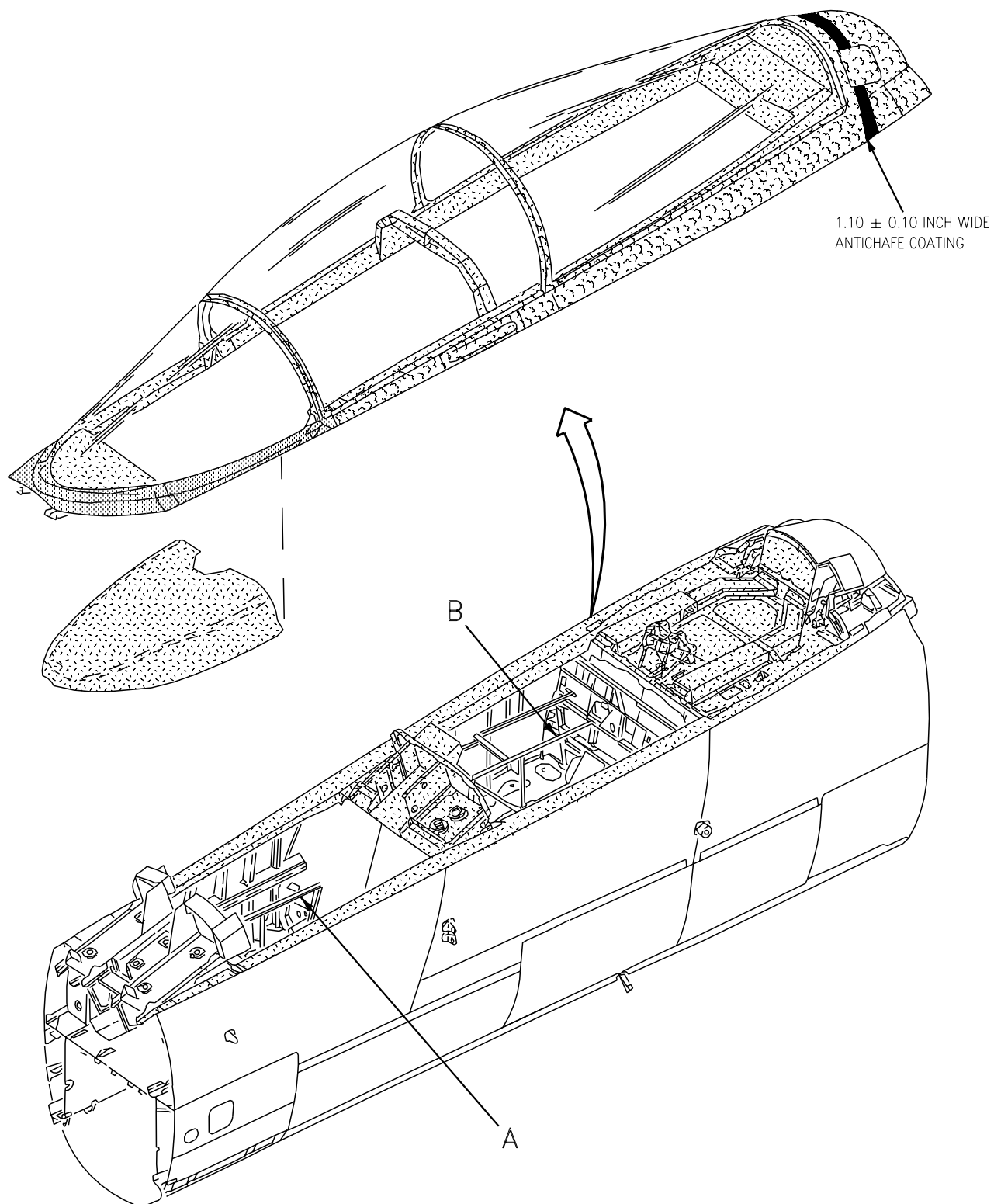


Figure 1. Finish System (Sheet 2)



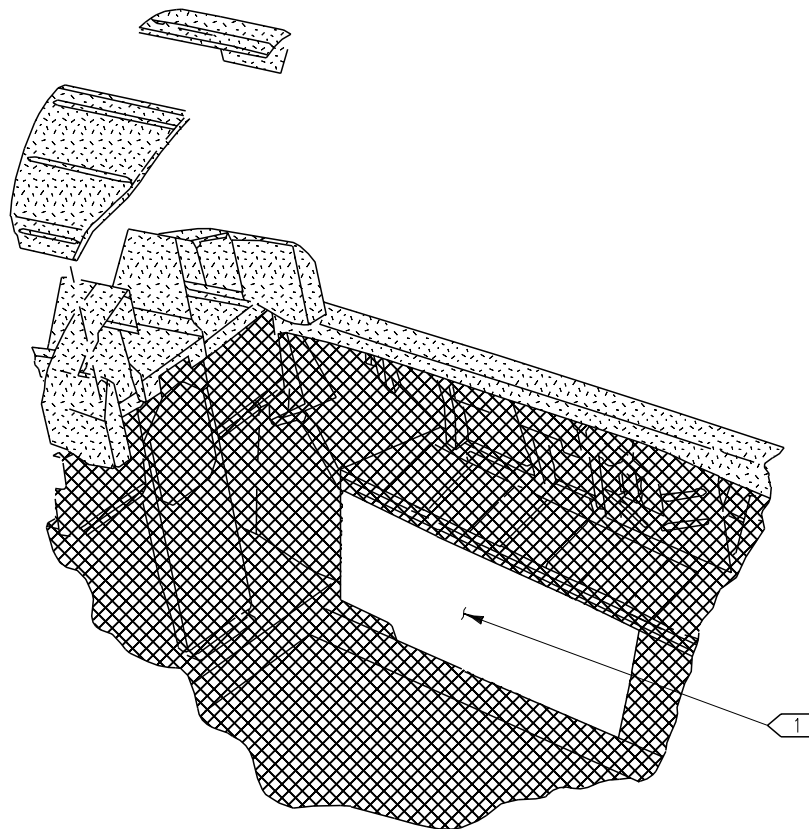
F/A-18B 161932 THRU 163123
F/A-18D 163434 AND UP

Figure 1. Finish System (Sheet 3)

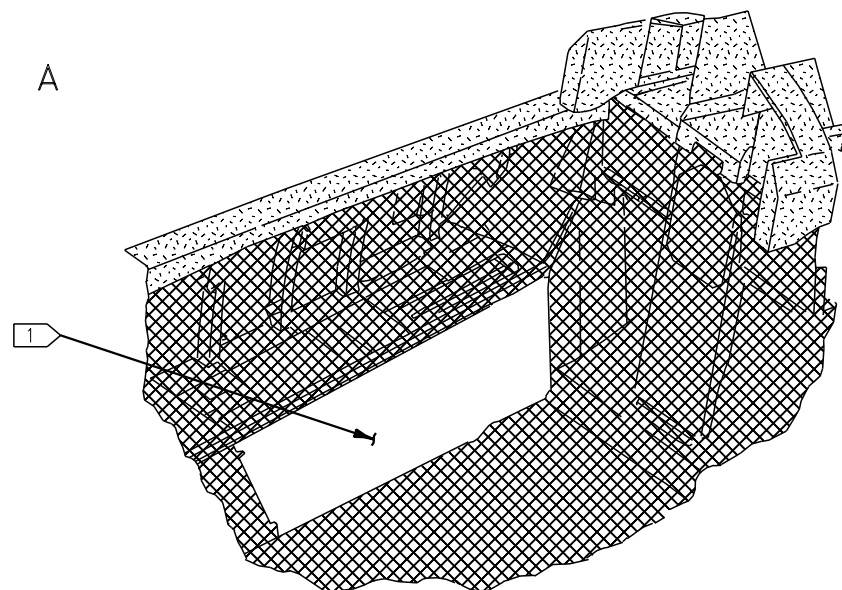


F/A-18B 161354 THRU 161924

Figure 1. Finish System (Sheet 4)



A



B

Figure 1. Finish System (Sheet 5)

LEGEND








| | |
|---|---|
|  | GRAY, FED-STD-595 COLOR NO. 36231, ALIPHATIC POLYURETHANE ENAMEL. |
|  | GRAY, FED-STD-595 COLOR NO. 36375, ALIPHATIC POLYURETHANE ENAMEL. |
|  | GRAY, FED-STD-595 COLOR NO. 35237, ALIPHATIC POLYURETHANE ENAMEL. |
|  | GRAY, FED-STD-595 COLOR NO. 36320, ALIPHATIC POLYURETHANE ENAMEL. |
|  | BLACK, FED-STD-595 COLOR NO. 37038, ALIPHATIC POLYURETHANE ENAMEL. |
|  | ANTICHAFF COATING, COLOR TO MATCH ADJACENT AREA. |
|  | DO NOT PAINT. |

Figure 1. Finish System (Sheet 6)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FORWARD FUSELAGE MAIN STRUCTURE ASSEMBLY CORROSION PRONE AREAS

Reference Material

| | |
|---|------------------|
| Structure Repair, Forward Fuselage | A1-F18AC-SRM-220 |
| Structure Group Index | WP001 01 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning..... | WP006 00 |
| Stripping..... | WP007 00 |
| Chemical Treatment..... | WP008 00 |
| Forward Fuselage Main Structure Assembly Finish System and Markings.... | WP024 00 |
| Structure Repair, Forward Fuselage | A1-F18AE-SRM-650 |
| Structure Group Index..... | WP001 01 |

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| Corrosion Inspection..... | 2 |
| Corrosion Prone Areas..... | 2 |
| Corrosion Removal..... | 2 |
| Finish System and Markings..... | 2 |
| Stripping..... | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The forward fuselage, extending from fuselage station Y204.500 to fuselage station Y383.000, including the leading edge extensions, is constructed of aluminum, graphite epoxy, steel, and titanium. Surface finish is primer and polyurethane coatings.

3. CORROSION PRONE AREAS. See figure 1.

- a. Dissimilar metal contact.
- b. Water entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Finish system/protection system damage.

4. CORROSION INSPECTION. (WP005 00).

- a. Mold line surfaces.

(1) The sealant system for cuts, chafing, tears, or missing sections.

(2) The finish system for damage/deterioration.

(3) Doors, covers, or skins for pitting, galvanic or surface corrosion.

(4) Electromagnetic interference (EMI) seals for broken fingers, worn tin plating, heavy tarnish, corrosion, and cleanliness.

(5) Door sills for cleanliness and corrosion.

(6) Hinge halves for wear or damage.

5. CLEANING. (WP006 00).**6. STRIPPING.** (WP007 00).**7. CORROSION REMOVAL.** (WP005 00).**8. CHEMICAL TREATMENT.** (WP008 00).**9. FINISH SYSTEM AND MARKINGS.** (WP024 00).**10. CLASSIFICATION OF CRITICAL ITEMS/AREAS.** (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).**11. CORROSION DAMAGE EVALUATION AND LIMITS.** (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).**12. CORROSION DAMAGE REPAIR.** (WP005 00 and A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

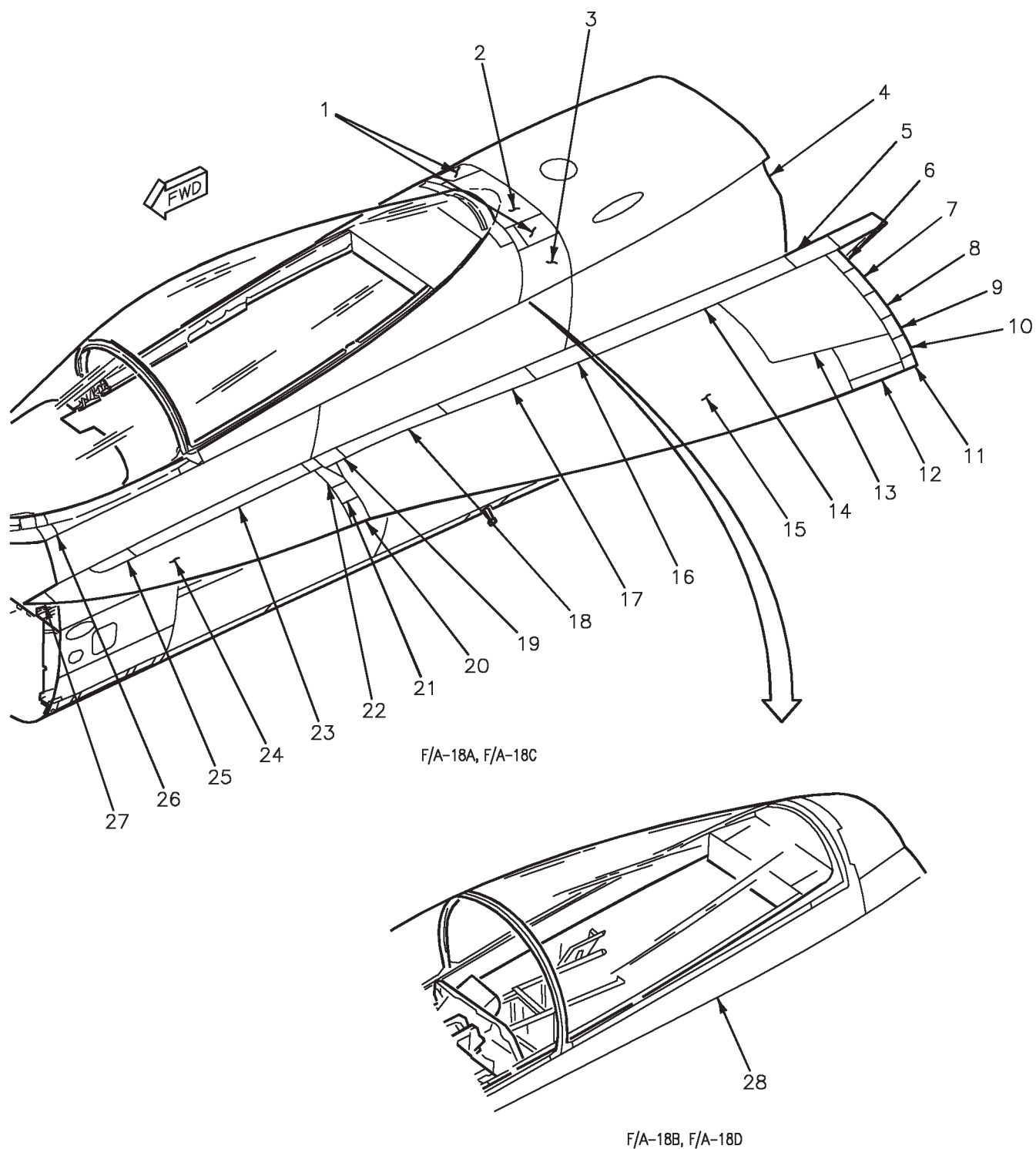


Figure 1. Skins, Doors and Covers (Sheet 1)

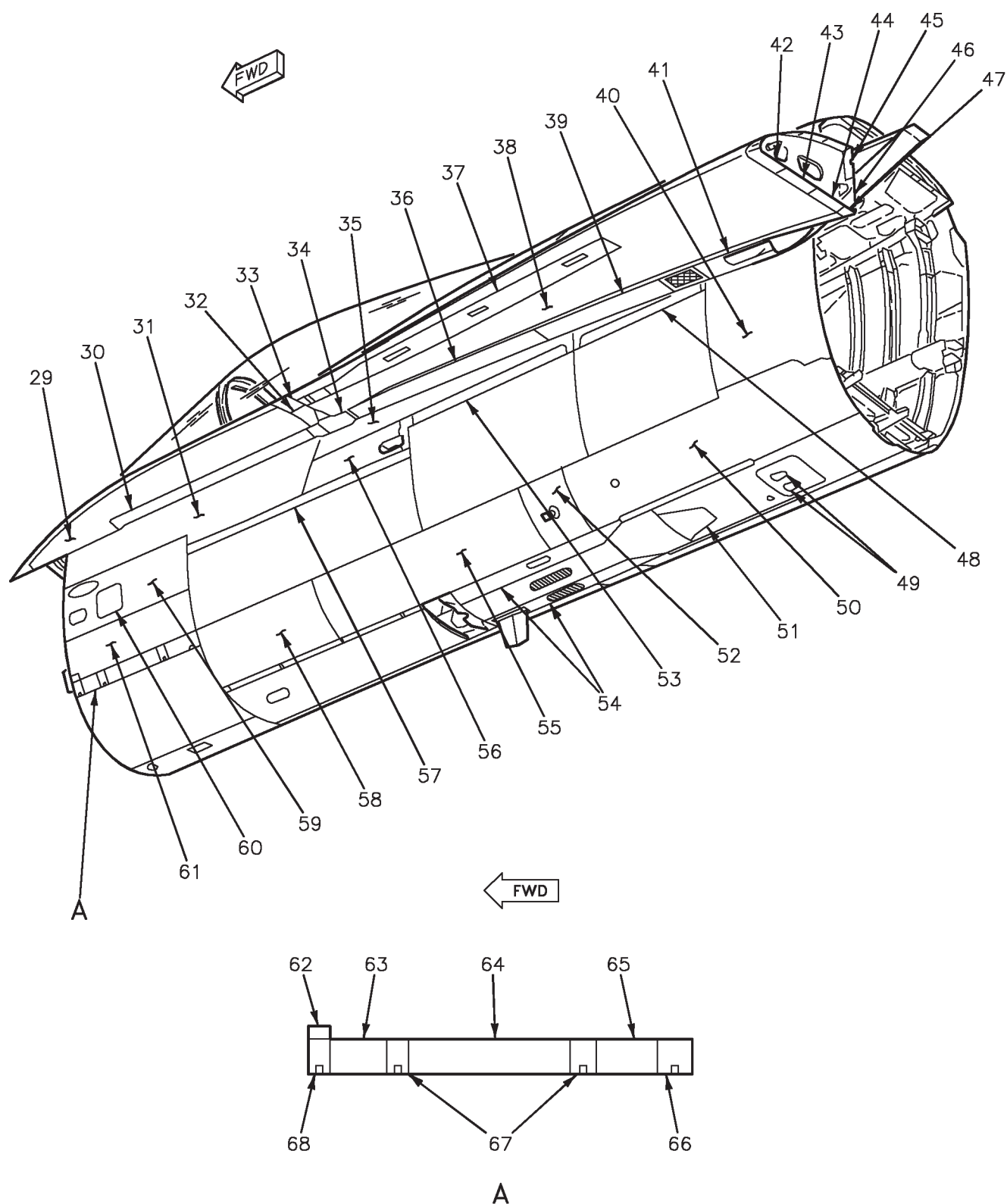
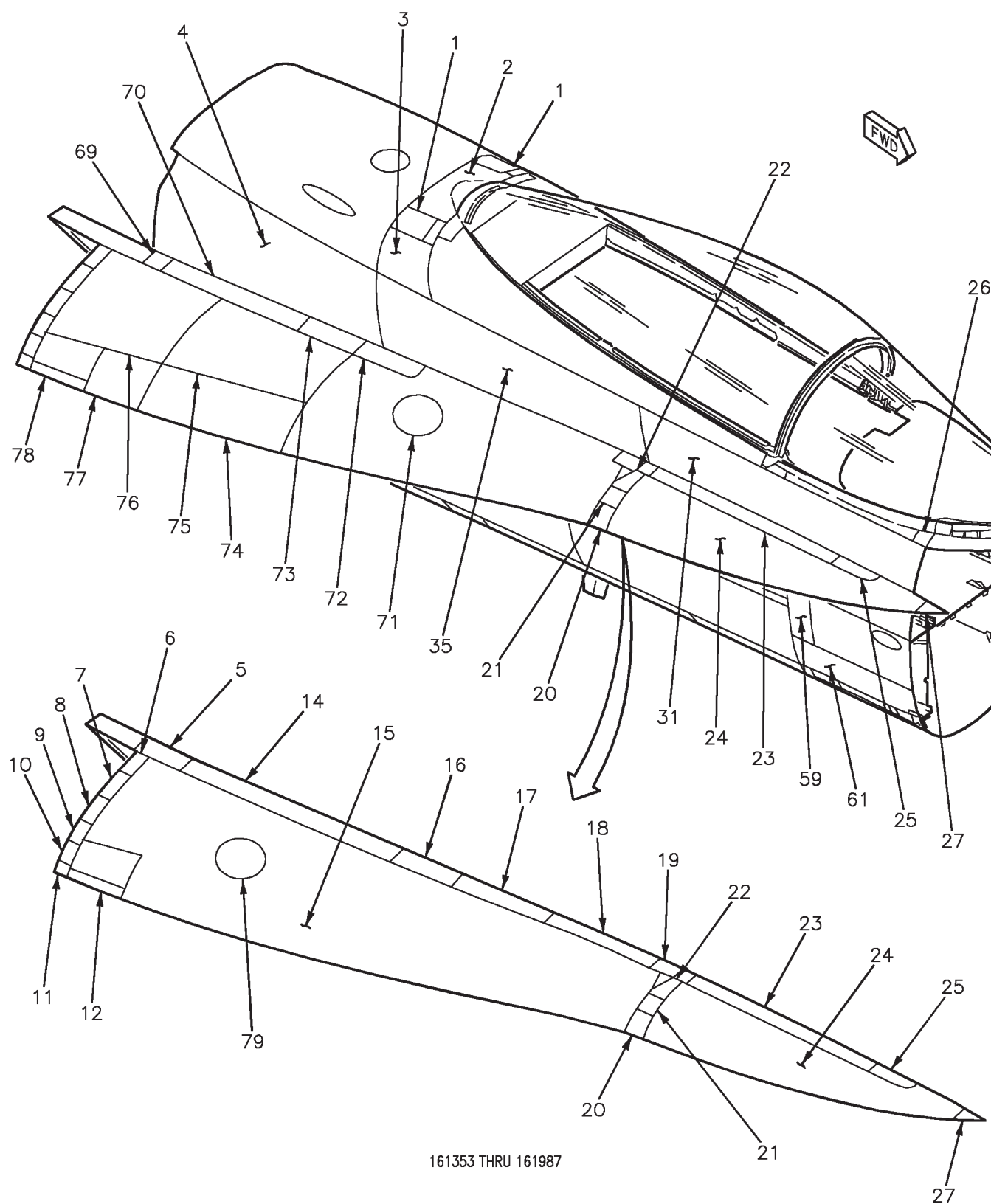


Figure 1. Skins, Doors and Covers (Sheet 2)



161353 THRU 161987

Figure 1. Skins, Doors and Covers (Sheet 3)

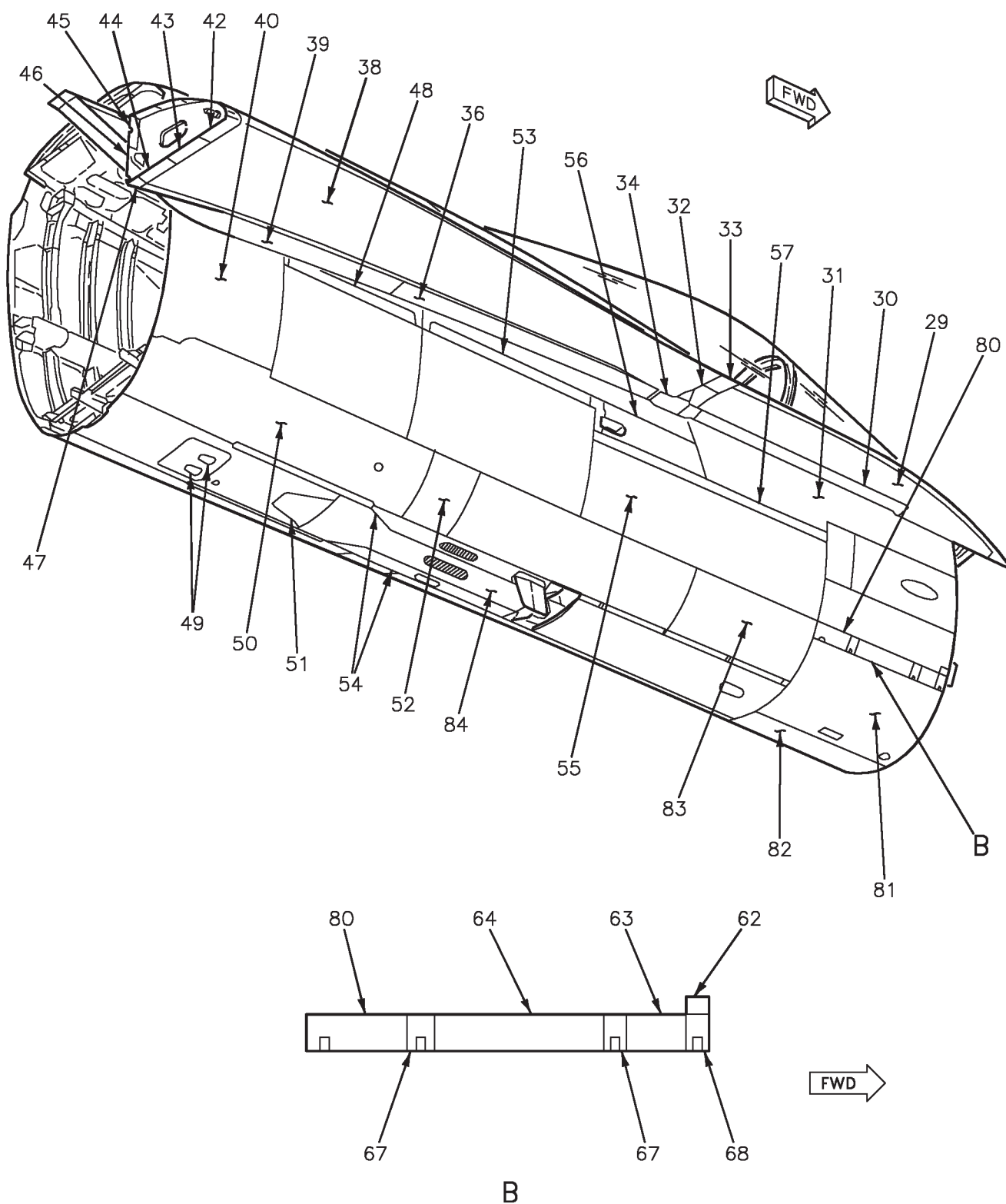
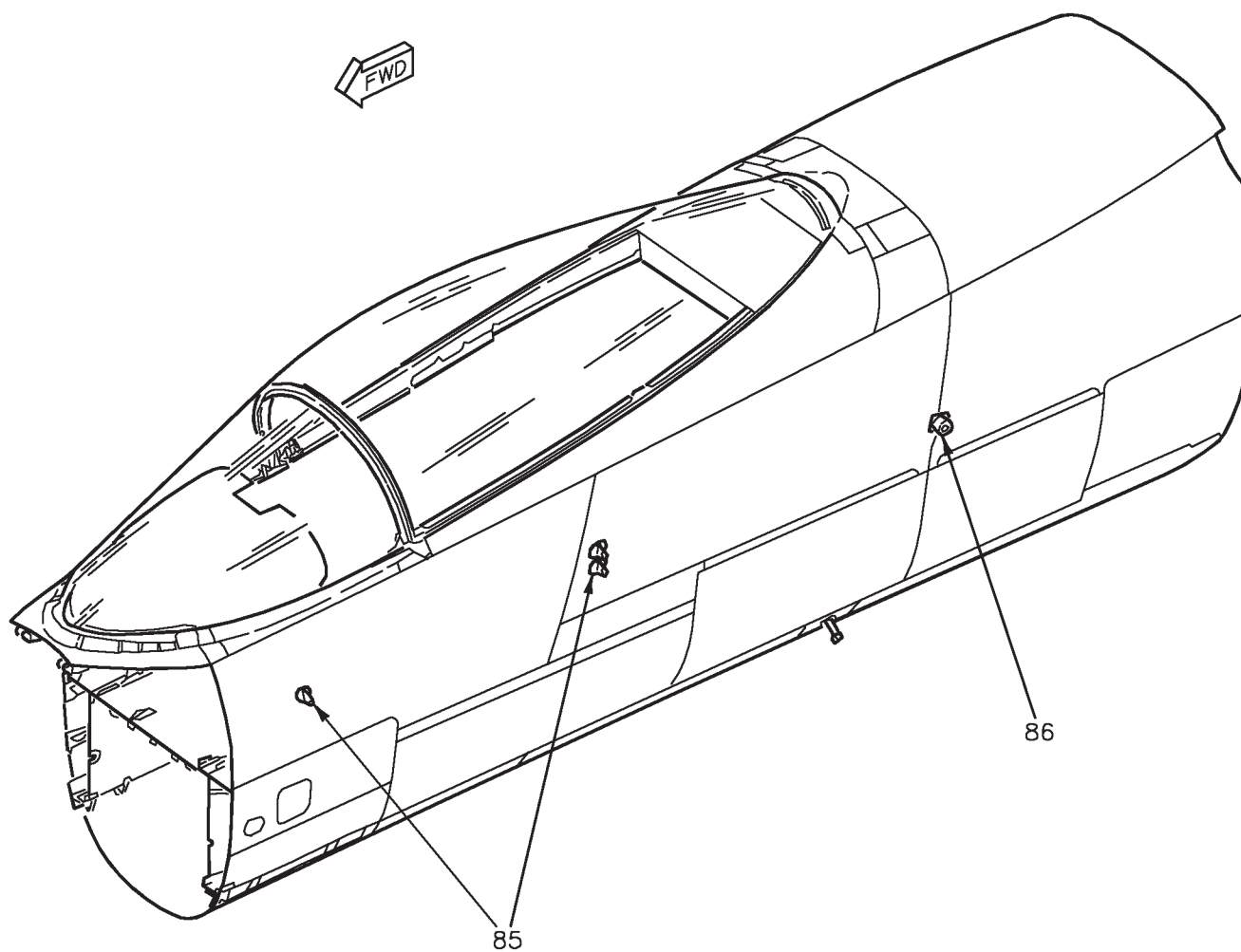


Figure 1. Skins, Doors and Covers (Sheet 4)



LEFT SHOWN
RIGHT OPPOSITE

Figure 1. Skins, Doors and Covers (Sheet 5)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------|-----------------------------------|
| 1 | Cover (Door 7) | 7075-T6 Alclad, Sheet | Surface, Galvanically accelerated |
| 2 | Skin (Door 96) | 7075-T6 Alclad, Sheet | Surface, Galvanically accelerated |
| 3 | Cover (Door 17) | 7075-T6 Alclad, Sheet | Surface, Galvanically accelerated |
| 4 | Skin | 7075-T76 Alclad, Sheet | Surface, Galvanically accelerated |
| 5 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 6 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 7 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 8 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 9 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 10 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 11 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 12 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 13 | Cover | 7075-T6 Alclad, Sheet | Surface |
| 14 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 15 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 16 | Skin | 7075-T6 Alclad, Sheet | Surface |

Figure 1. Skins, Doors and Covers (Sheet 6)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------|----------------|
| 17 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 18 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 19 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 20 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 21 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 22 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 23 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 24 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 25 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 26 | Cover (Door 24) | 7075-T6 Alclad, Sheet | Surface |
| 27 | Leading Edge | 7075-T7351 Al Aly, Sheet | Pitting |
| 28 | Cover (Door 85) | 7075-T6 Alclad, Sheet | Surface |
| 29 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 30 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 31 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 32 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 33 | Skin | 7075-T6 Alclad, Sheet | Surface |

Figure 1. Skins, Doors and Covers (Sheet 7)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------|-----------------------------------|
| 34 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 35 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 36 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 37 | Beam | 7075-T7351 Al Aly, Plate | Pitting |
| 38 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 39 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 40 | Skin | 7075-T76 Alclad, Sheet | Surface, Galvanically accelerated |
| 41 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 42 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 43 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 44 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 45 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 46 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 47 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 48 | Hinge | 7075-T73511, Extrusion | Pitting, Galvanically accelerated |
| 49 | Cover (Door 141) | 7075-T6 Alclad, Sheet | Surface |

Figure 1. Skins, Doors and Covers (Sheet 8)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------|-----------------------------------|
| 50 | Skin | 6Al-4V Titanium, Sheet | Pitting, Galvanically accelerated |
| 51 | Door 16 | 7075-T6 Alclad, Sheet | Surface |
| 52 | Skin | 7075-T76 Alclad, Sheet | Surface, Galvanically accelerated |
| 53 | Hinge | 7075-T73511, Extrusion | Pitting, Galvanically accelerated |
| 54 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 55 | Skin | 7075-T6 Alclad, Sheet | Surface, Galvanically accelerated |
| 56 | Skin (Door 30) | 7075-T6 Alclad, Sheet | Surface, Galvanically accelerated |
| 57 | Hinge | 7075-T73511, Extrusion | Pitting, Galvanically accelerated |
| 58 | Skin (Door 25) | 7075-T6 Alclad, Sheet | Surface, Galvanically accelerated |
| 59 | Skin | 7075-T6 Alclad, Sheet | Surface, Galvanically accelerated |
| 60 | Door 9 | 7075-T76 Alclad, Sheet | Surface, Galvanically accelerated |
| 61 | Skin (Door 11) | 7075-T76 Alclad, Sheet | Surface, Galvanically accelerated |
| 62 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 63 | Skin | 7075-T6 Alclad, Sheet | Surface |

Figure 1. Skins, Doors and Covers (Sheet 9)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------|---------------------------------|
| 64 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 65 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 66 | Hinge | 7075-T76511, Extrusion | Pitting |
| 67 | Hinge | 7075-T76511, Extrusion | Pitting |
| 68 | Hinge | 7075-T76511, Extrusion | Pitting |
| 69 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 70 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 71 | Cover | 7075-T76 Alclad, Sheet | Surface |
| 72 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 73 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 74 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 75 | Cover | 7075-T76 Alclad, Sheet | Surface |
| 76 | Cover | 7075-T76 Alclad, Sheet | Surface |
| 77 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 78 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 79 | Cover | 7075-T6 Alclad, Sheet | Surface |
| 80 | Skin | 7075-T6 Alclad, Sheet | Surface, Galvanically accerated |

Figure 1. Skins, Doors and Covers (Sheet 10)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------|-----------------------------------|
| 81 | Door | 7075-T6 Alclad, Sheet | Surface, Galvanically accelerated |
| 82 | Door | 7075-T76 Alclad, Sheet | Surface, Galvanically accelerated |
| 83 | Door | 7075-T6 Alclad, Sheet | Surface, Galvanically accelerated |
| 84 | Fairing | 7075-T6 Alclad, Sheet | Surface |
| 85 | Support | 7075-T73, Extrusion | Pitting |
| 86 | Support | 7075-T7351, Plate | Pitting |

Figure 1. Skins, Doors and Covers (Sheet 11)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

NLG WHEELWELL CORROSION PRONE AREAS

Reference Material

| | |
|---|------------------|
| Structure Repair, Forward Fuselage | A1-F18AC-SRM-220 |
| Structure Group Index | WP001 01 |
| Aircraft Corrosion Control | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning | WP006 00 |
| Stripping | WP007 00 |
| Chemical Treatment | WP008 00 |
| Landing Gear, Arresting Hook, and Launch Bar, Finish System and Mark- ings | WP042 00 |
| Structure Repair, Forward Fuselage | A1-F18AE-SRM-650 |
| Structure Group Index | WP001 01 |

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| Corrosion Damage Repair | 2 |
| Corrosion Inspection | 2 |
| Corrosion Prone Areas | 2 |
| Corrosion Removal | 2 |
| Finish System and Markings | 2 |
| Stripping | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The Nose Landing Gear (NLG) wheelwell extends from fuselage station Y204.500 to fuselage station Y326.500. Surface finish of airframe components in the wheelwell is primer and a polyurethane top coat.

3. CORROSION PRONE AREAS. See Figure 1.

- a. Dissimilar metal contact.
- b. Water entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Finish system/protection system damage.

4. **CORROSION INSPECTION.** Visually inspect for corrosion (WP005 00).

5. **CLEANING.** (WP006 00).

6. **STRIPPING.** (WP007 00).

7. **CORROSION REMOVAL.** (WP005 00).

8. **CHEMICAL TREATMENT.** (WP008 00).

9. **FINISH SYSTEM AND MARKINGS.** (WP042 00).

10. **CLASSIFICATION OF CRITICAL ITEMS/AREAS.** (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

11. **CORROSION DAMAGE EVALUATION AND LIMITS.** (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

12. **CORROSION DAMAGE REPAIR.** (WP005 00 and A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

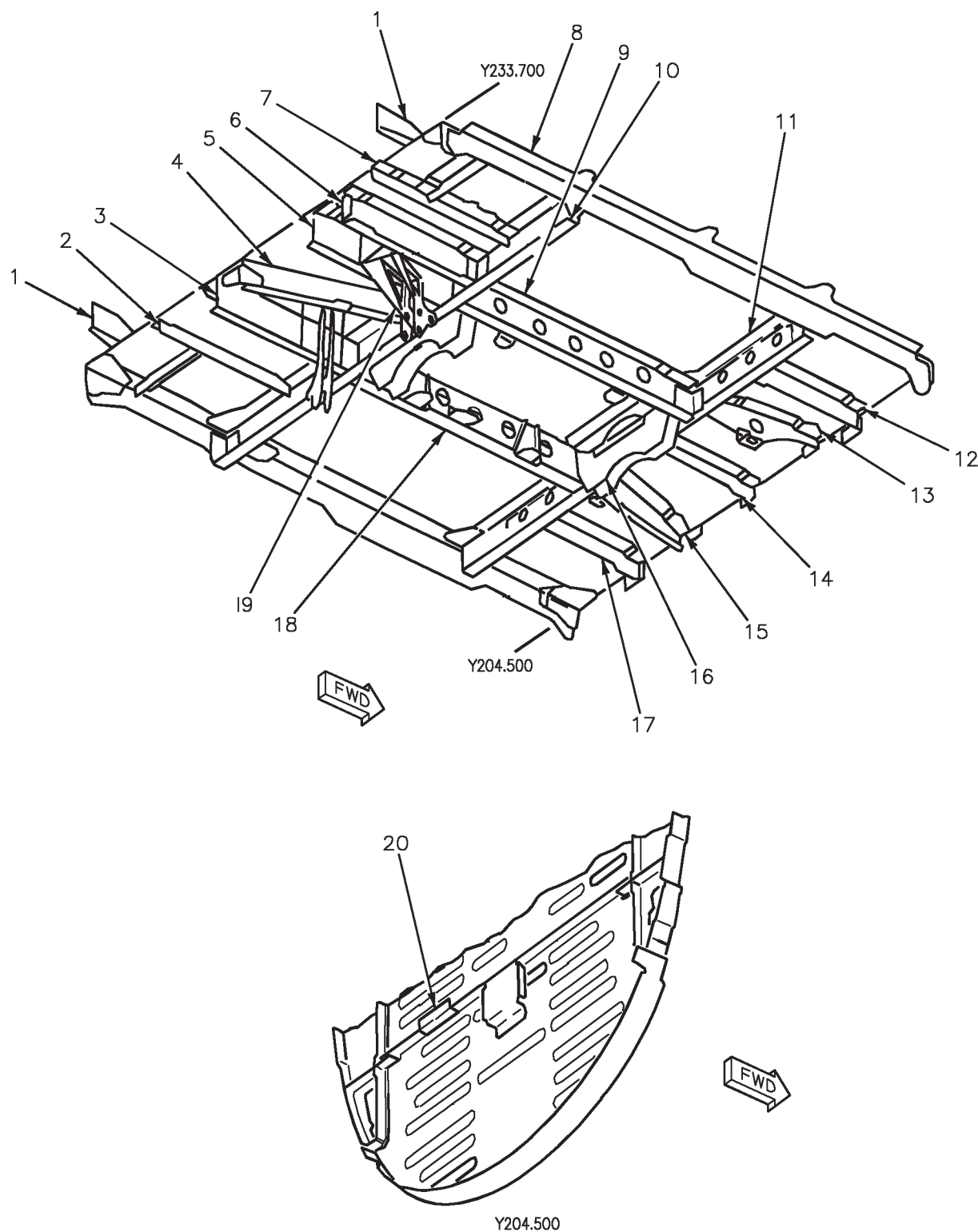


Figure 1. NLG Wheel Well (Sheet 1)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|------------------------|-------------------------------|-----------------|
| 1 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 2 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 3 | Support | 7075-T6 Alclad, Sheet | Surface |
| 4 | Support | 7075-T6 Alclad, Sheet | Surface |
| 5 | Support | 7075-T6 Alclad, Sheet | Surface |
| 6 | Support | 7075-T6 Alclad, Sheet | Surface |
| 7 | Support | 7075-T6 Alclad, Sheet | Surface |
| 8 | Support | 7075-T73511 Al Aly, Extrusion | Pitting |
| 9 | Support | 7075-T6 Alclad, Sheet | Surface |
| 10 | Support | 7075-T73511 Al Aly, Extrusion | Surface |
| 11 | Support | 7075-T73511 Al Aly, Extrusion | Surface |
| 12 | Support | 7075-T6 Alclad, Sheet | Surface |
| 13 | Support | 7075-T6 Alclad, Sheet | Surface |
| 14 | Support | 7075-T6 Alclad, Sheet | Surface |
| 15 | Support | 7075-T6 Alclad, Sheet | Surface |
| 16 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 17 | Support | 7075-T6 Alclad, Sheet | Surface |
| 18 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 19 | Pulley Bracket Support | A356-T61 Casting | Surface/Pitting |
| 20 | Angle | 7075-T6 Alclad | Surface |

Figure 1. NLG Wheel Well (Sheet 2)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

AVIONIC BAYS, CORROSION PRONE AREAS

Reference Material

| | |
|---|------------------|
| Structure Repair, Forward Fuselage | A1-F18AC-SRM-220 |
| Structure Group Index | WP001 01 |
| Aircraft Corrosion Control | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning | WP006 00 |
| Stripping | WP007 00 |
| Chemical Treatment | WP008 00 |
| Forward Fuselage Main Structure Assembly Finish System and Markings.... | WP024 00 |
| Structure Repair, Forward Fuselage | A1-F18AE-SRM-650 |
| Structure Group Index | WP001 01 |

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| Corrosion Damage Repair | 2 |
| Corrosion Inspection | 2 |
| Corrosion Prone Areas | 2 |
| Corrosion Removal | 2 |
| Finish System and Markings | 2 |
| Stripping | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The avionic bays, equipment shelves, and equipment supports are aluminum alloy construction. The bay doors are aluminum alloy honeycomb core and graphite epoxy composite. The finish system is primer and polyurethane top coat.

3. CORROSION PRONE AREAS. See figure 1.

- a. Dissimilar metal contact.
- b. Water entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Finish system/protection system damage.

4. CORROSION INSPECTION. Visually inspect for corrosion (WP005 00).

5. CLEANING. (WP006 00).

6. STRIPPING. (WP007 00).

7. CORROSION REMOVAL. (WP005 00).

8. CHEMICAL TREATMENT. (WP008 00).

9. FINISH SYSTEM AND MARKINGS. (WP024 00).

10. CLASSIFICATION OF CRITICAL ITEMS/AREAS. (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

11. CORROSION DAMAGE EVALUATION AND LIMITS. (A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

12. CORROSION DAMAGE REPAIR. (WP005 00 and A1-F18AC-SRM-220, WP001 01 or A1-F18AE-SRM-650, WP001 01).

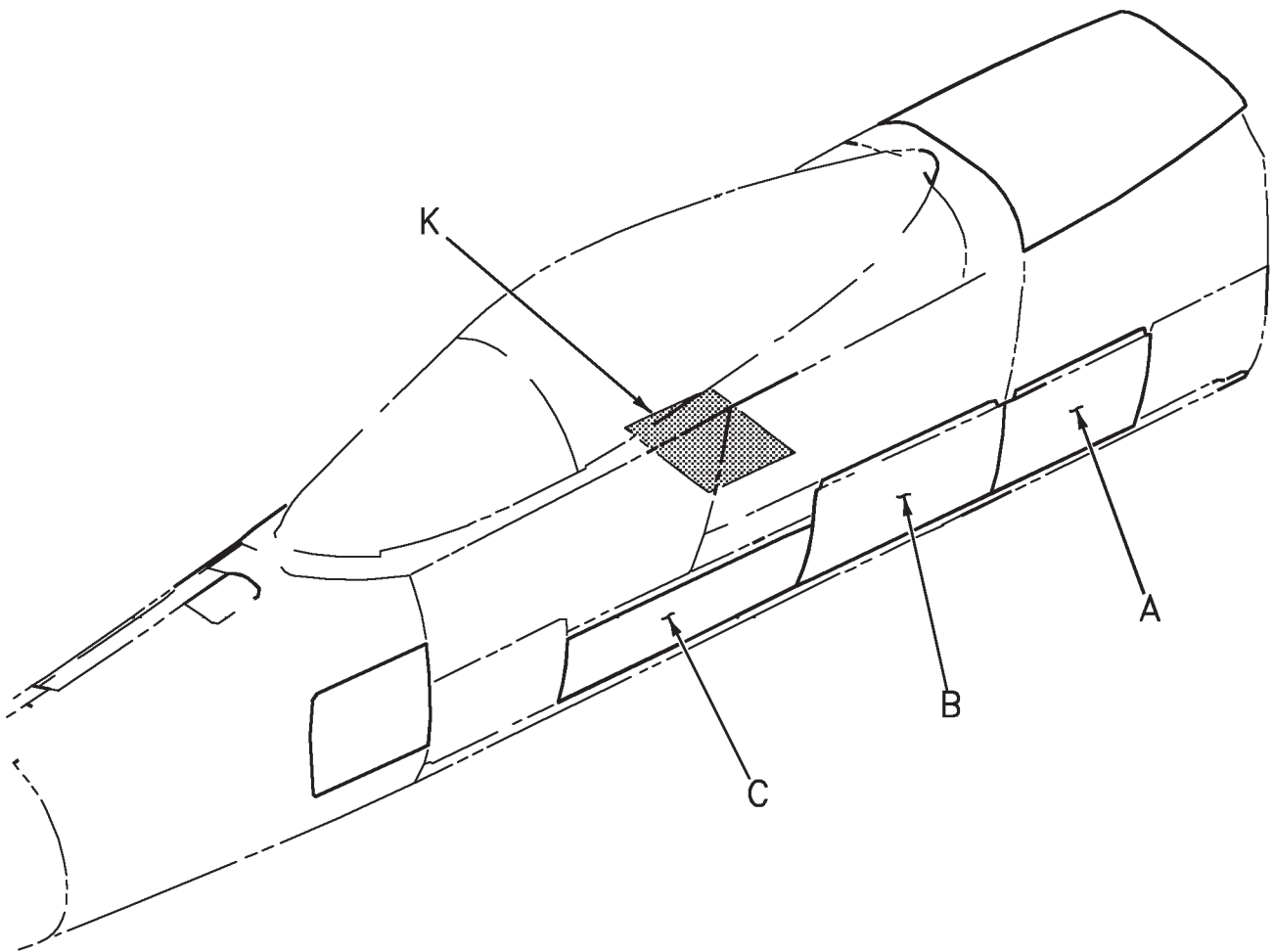


Figure 1. Avionic Bays (Sheet 1)

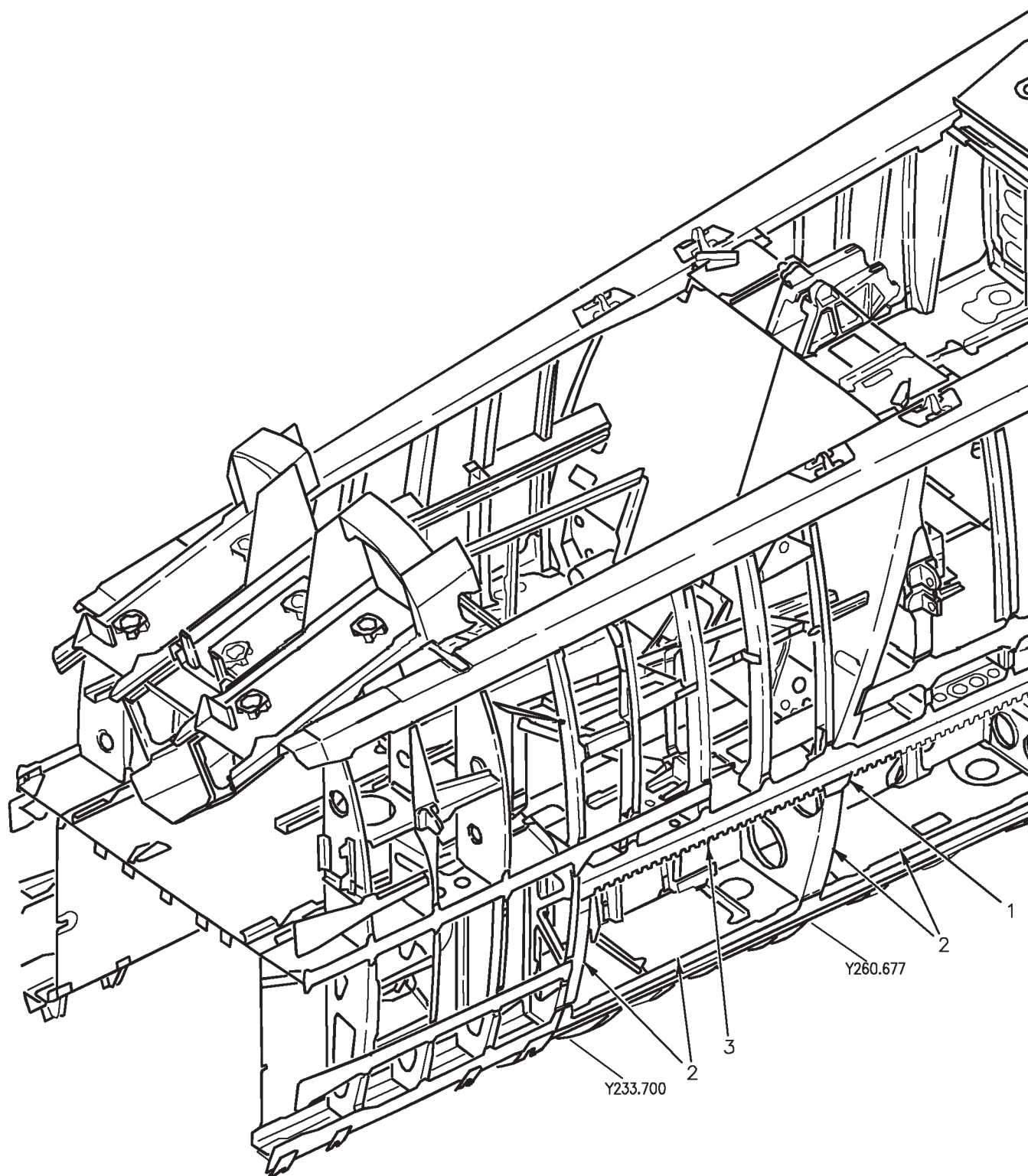


Figure 1. Avionic Bays (Sheet 2)

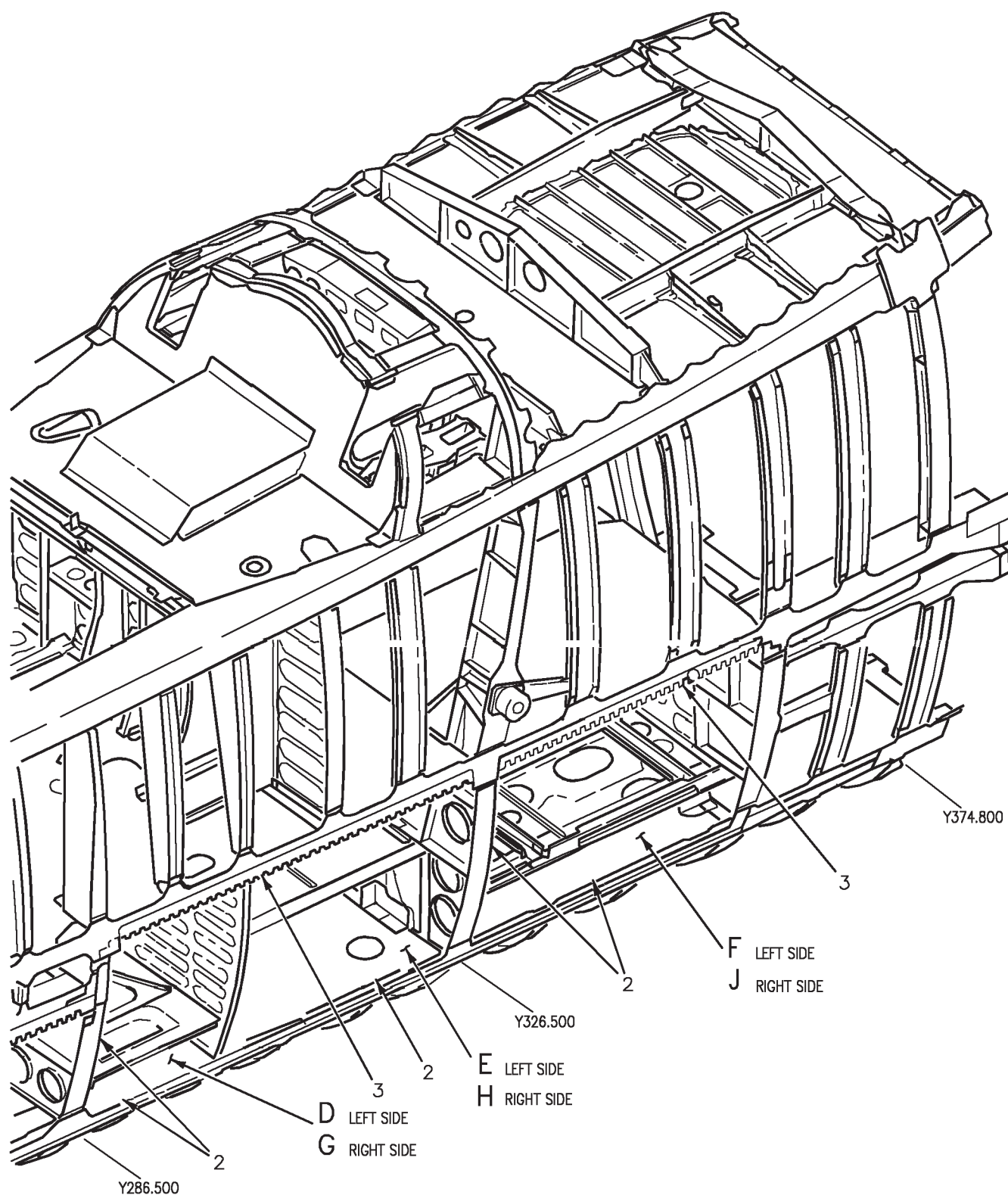


Figure 1. Avionic Bays (Sheet 3)

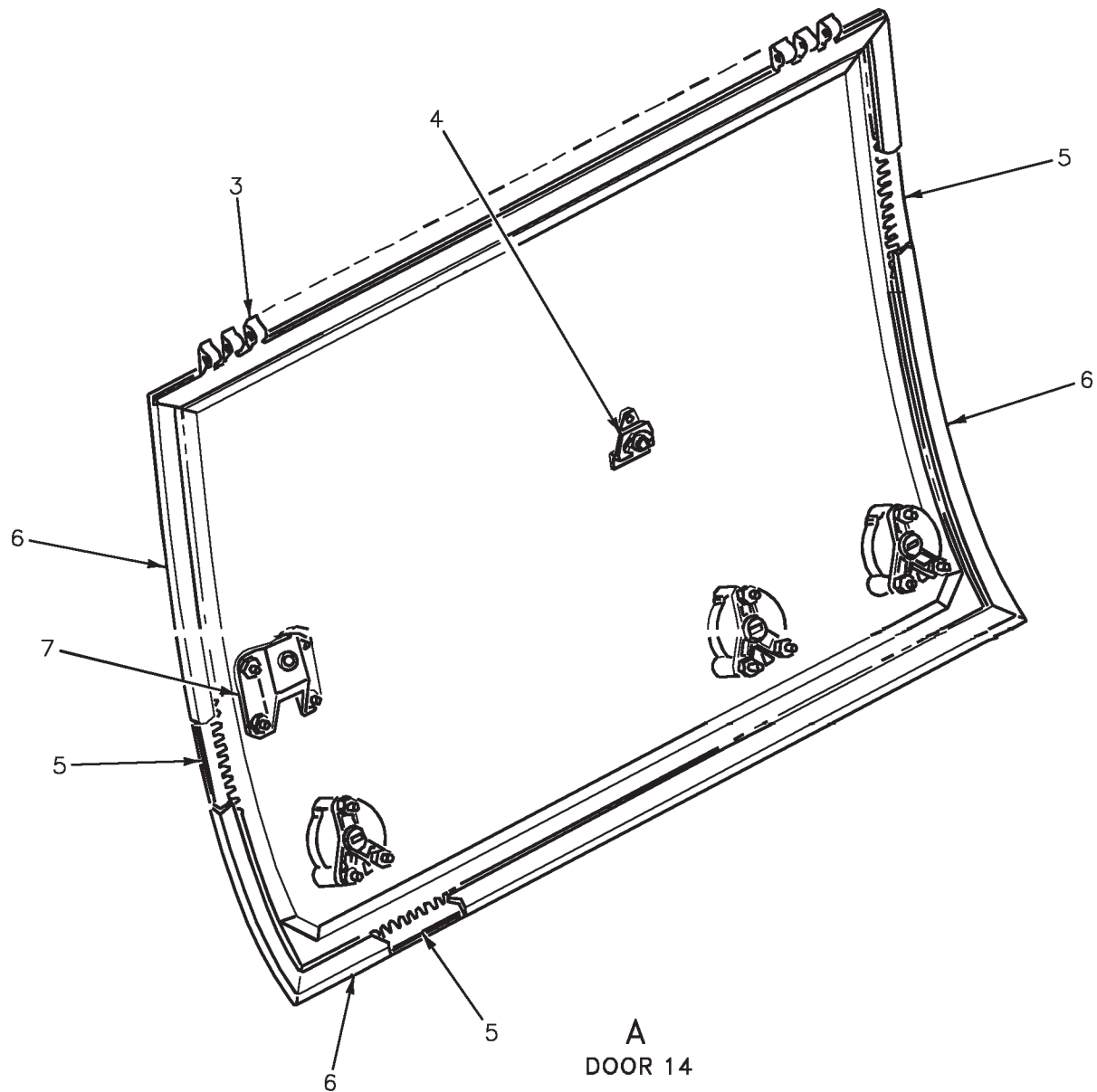


Figure 1. Avionic Bays (Sheet 4)

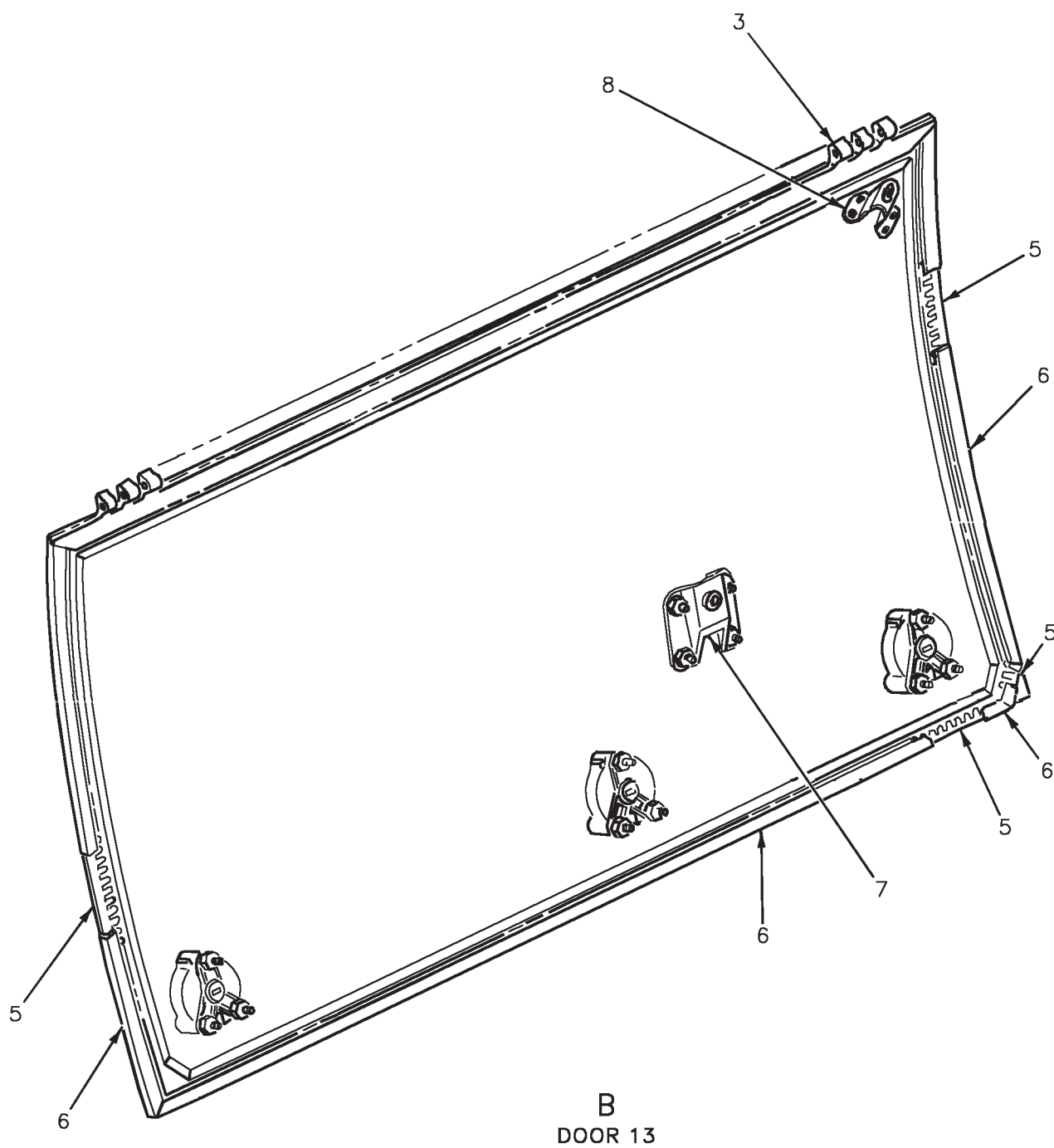


Figure 1. Avionic Bays (Sheet 5)

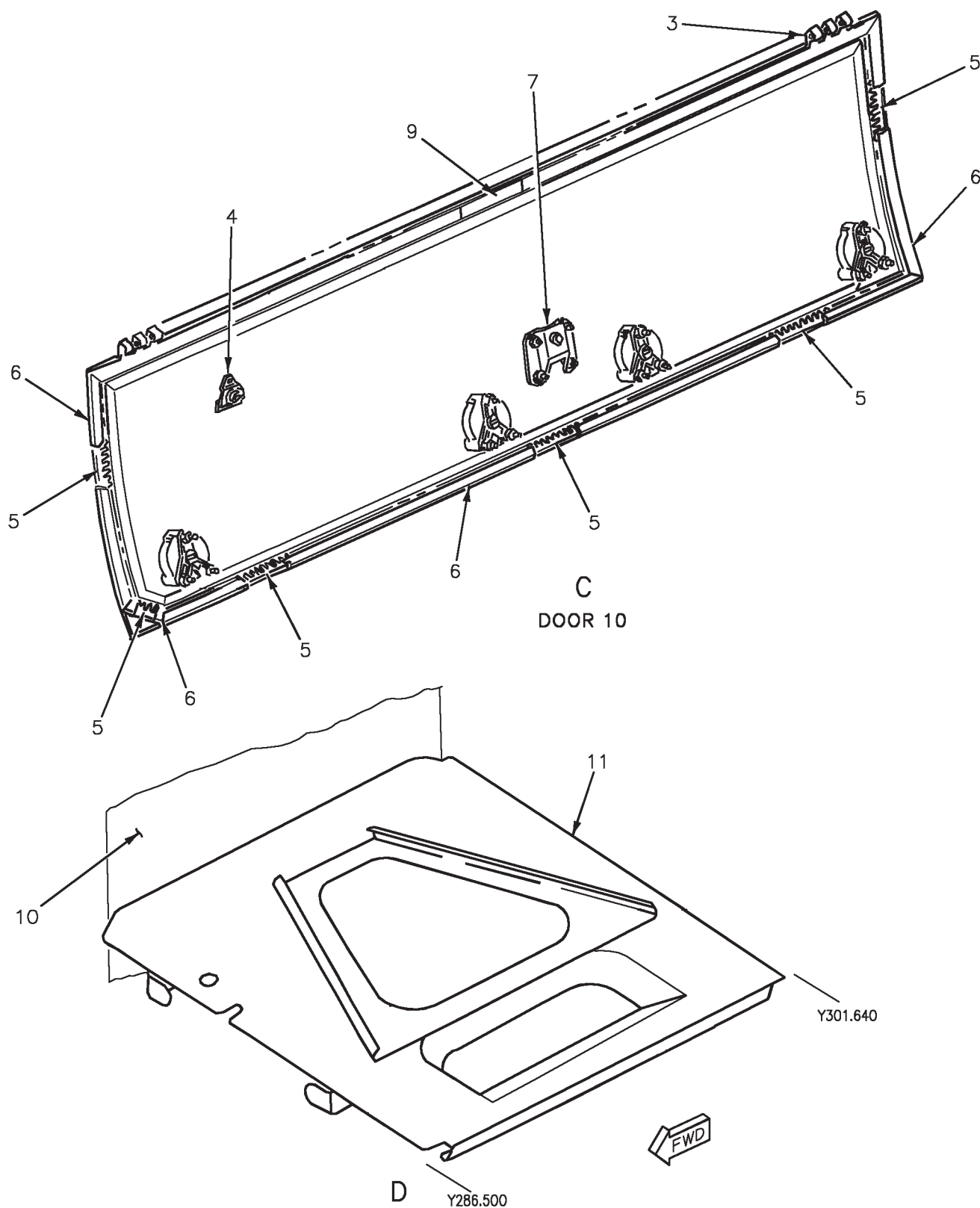
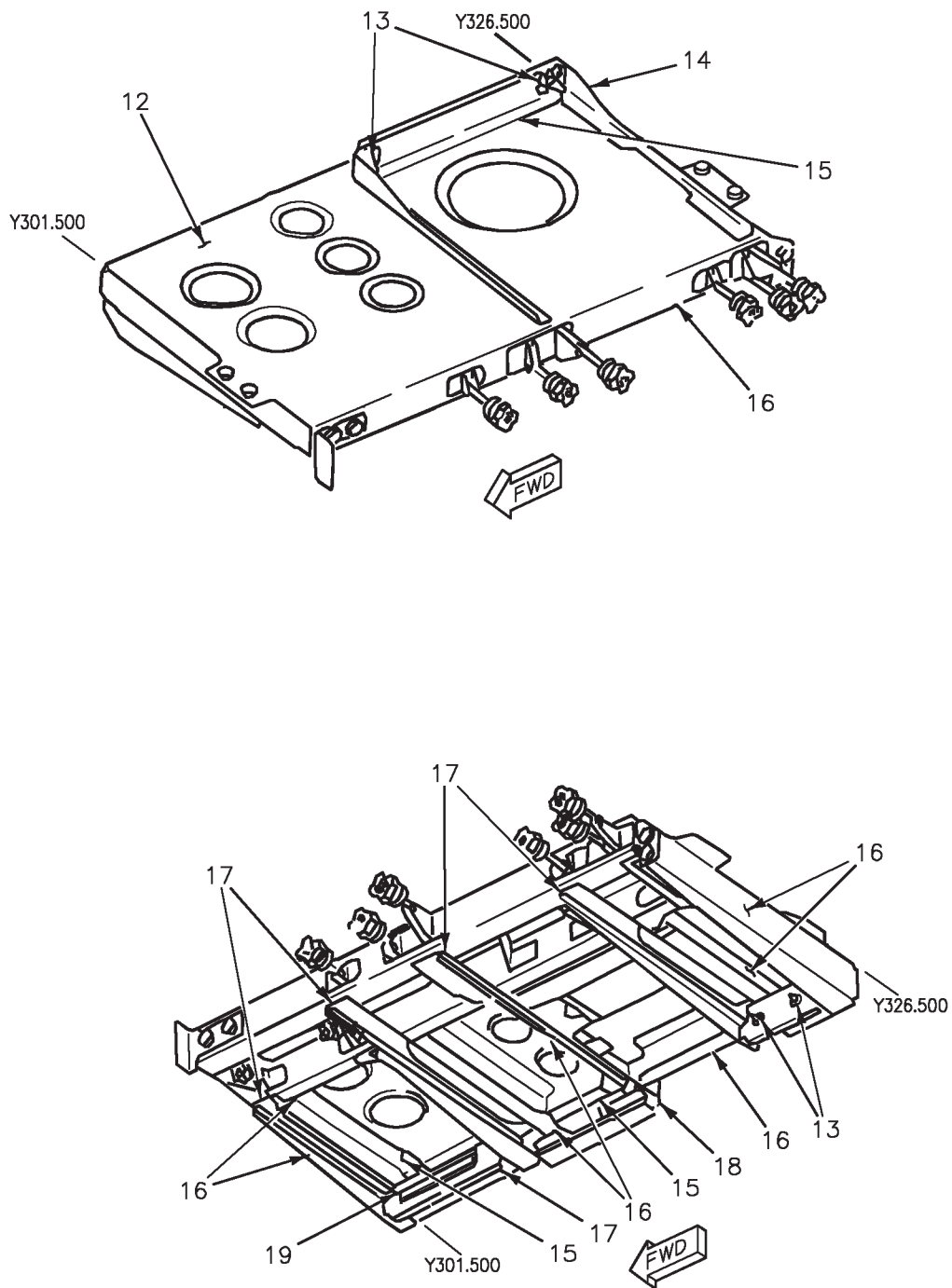
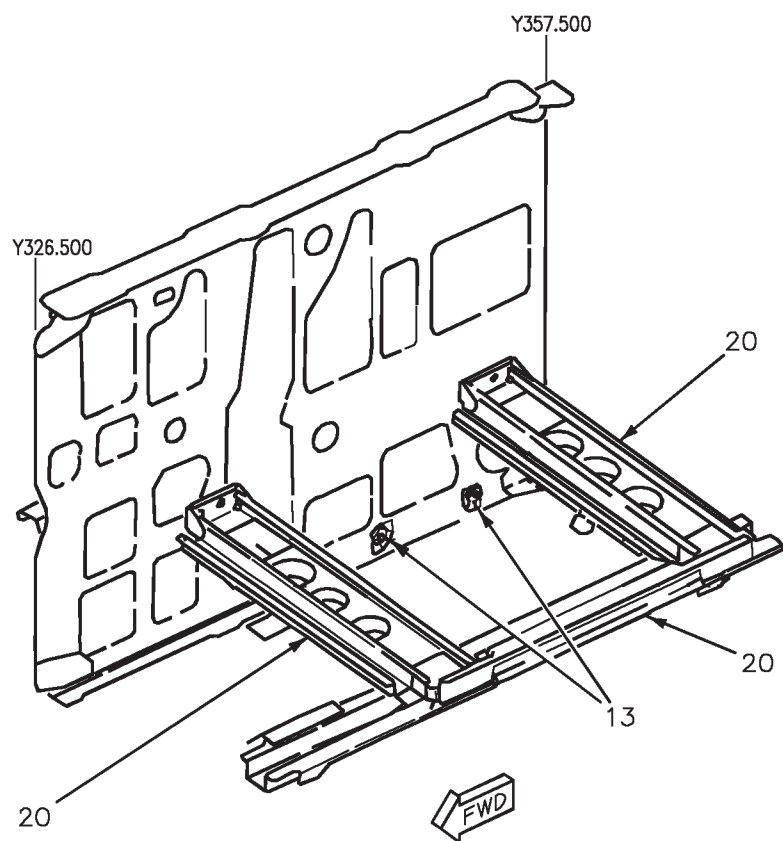


Figure 1. Avionic Bays (Sheet 6)

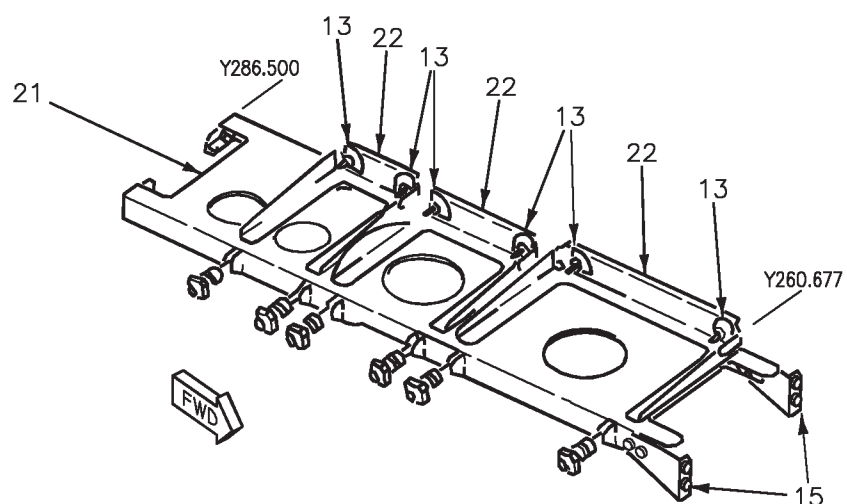


E

Figure 1. Avionic Bays (Sheet 7)



F



G

Figure 1. Avionic Bays (Sheet 8)

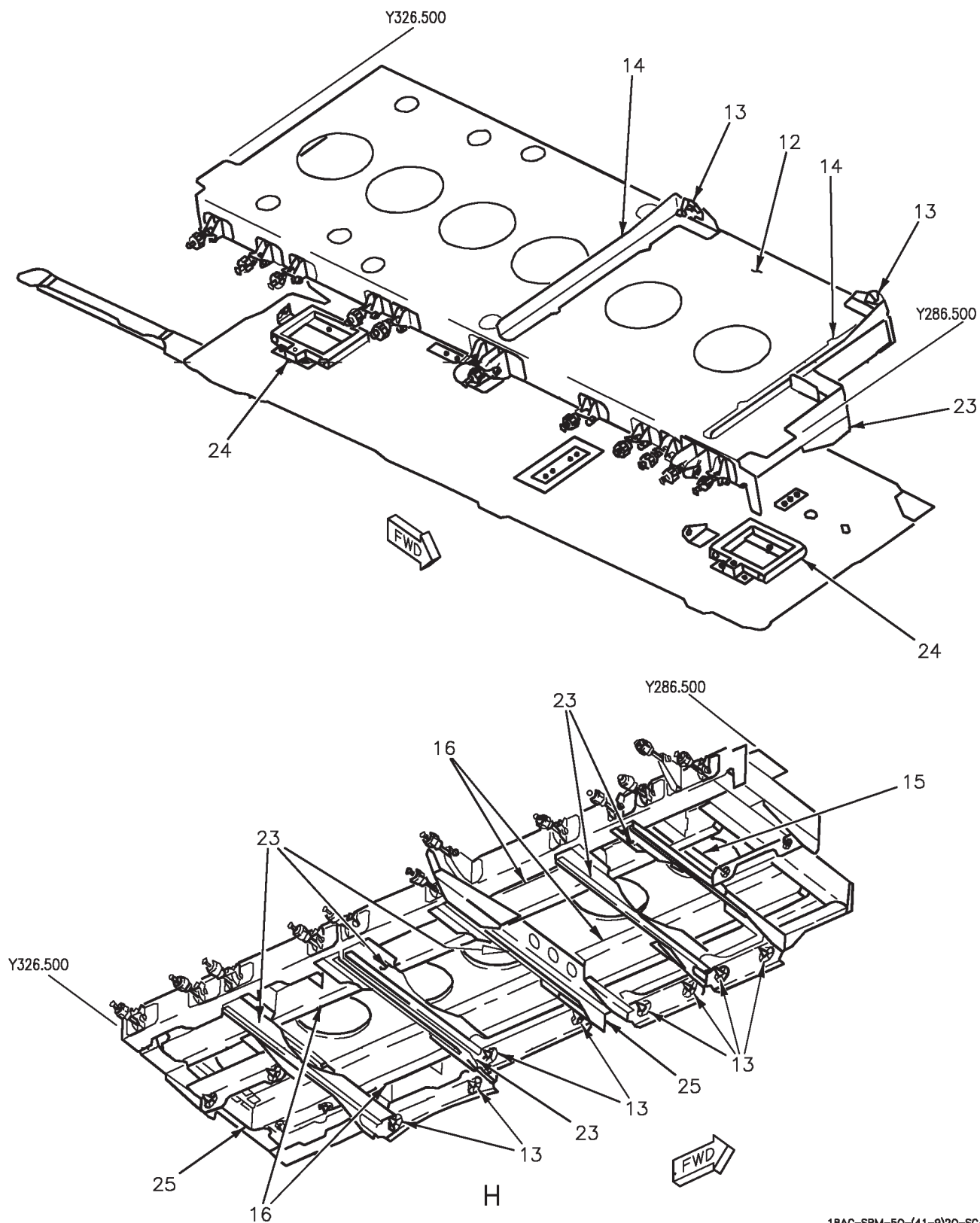


Figure 1. Avionic Bays (Sheet 9)

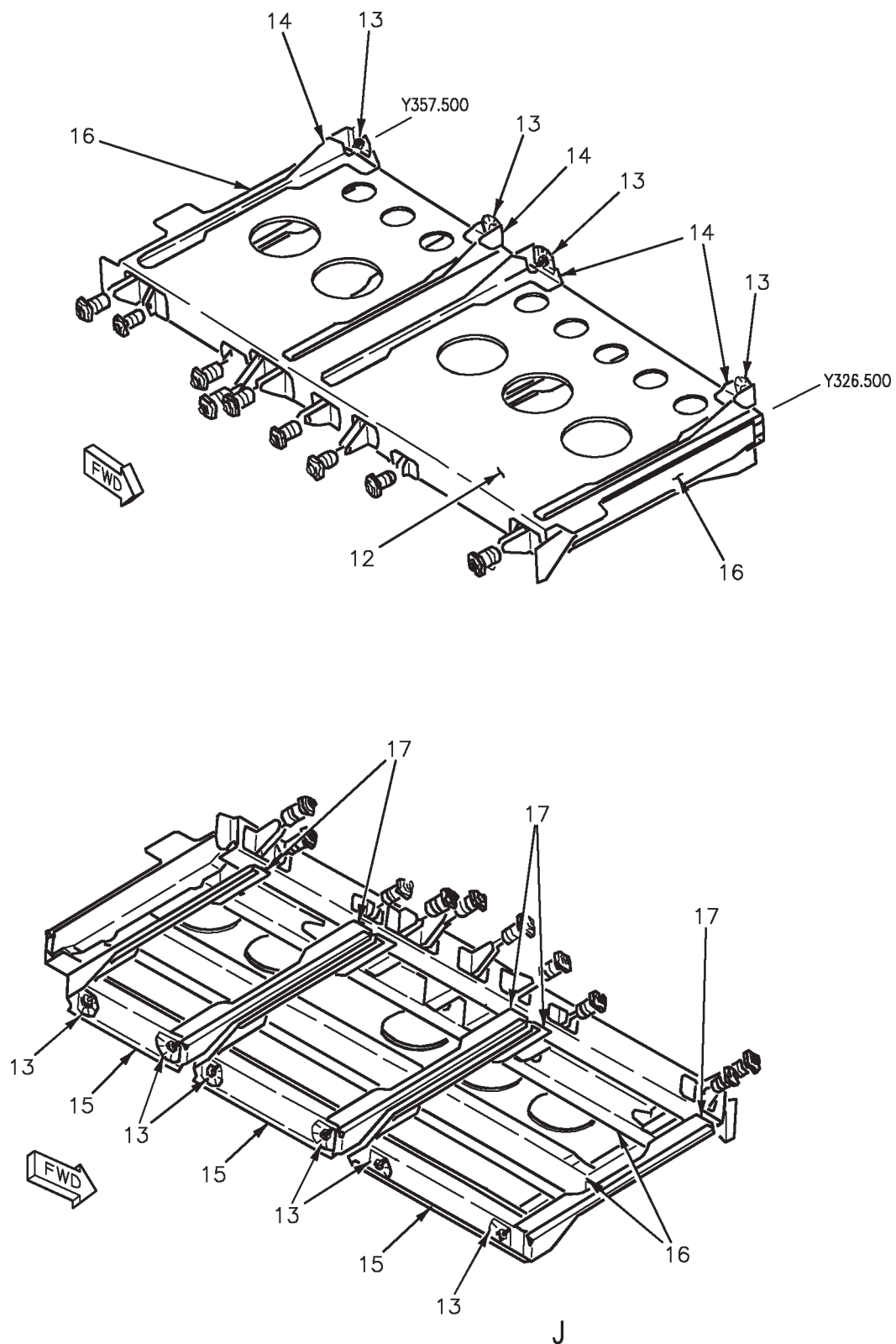


Figure 1. Avionic Bays (Sheet 10)

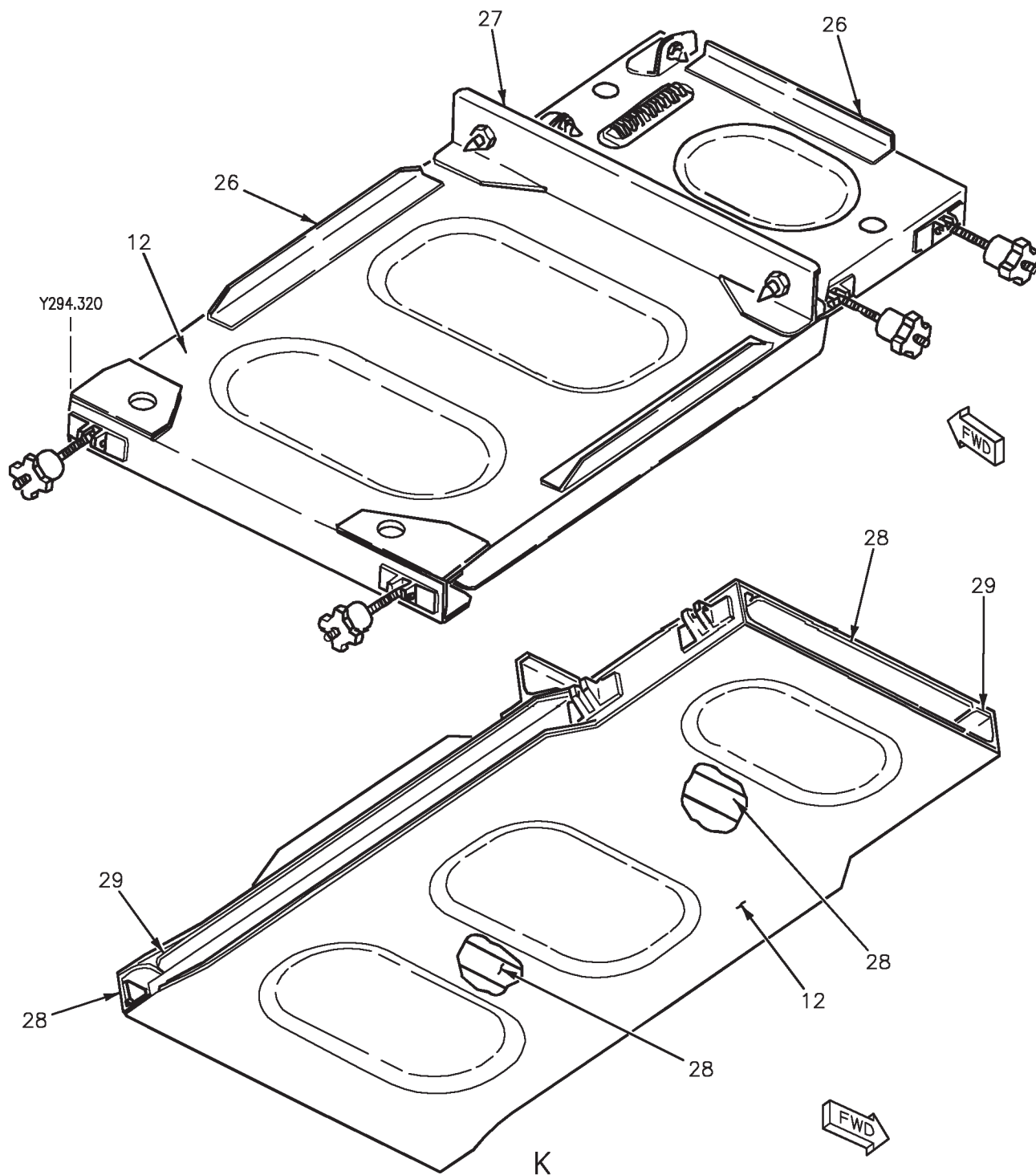


Figure 1. Avionic Bays (Sheet 11)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|--|---------------------------------|-----------------|
| 1 | Electrical Bonding Strip | Tin Plating on Beryllium Copper | Surface |
| 2 | Electrical Bonding Strip, Aircraft Structure | Tin - Zinc Plating | Surface/Pitting |
| 3 | Hinge Tangs (Door and Structural Mating Surface) | 7075-T73511 Al Aly, Plate | Surface |
| 4 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 5 | Leaf | Tin Plated Beryllium Copper | Tarnish |
| 6 | Retainer | 6061-T6511 Al Aly, Extrusion | Pitting |
| 7 | Support | 7075-T76511 Al Aly, Extrusion | Pitting |
| 8 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 9 | Hinge (Unpainted Area, Electrical Bonding) | 7075-T6 Al Aly, Plate | Surface |
| 10 | Web | 7075-T73511 Al Aly, Sheet | Surface |
| 11 | Closure | 6061-T6 Al Aly, Sheet | Surface |
| 12 | Web | 7075-T6 Alclad, Sheet | Surface |
| 13 | Electrical Grounding Washer | Tin Plated Beryllium Copper | Tarnish |
| 14 | Guide | 7075-T6 Alclad, Sheet | Surface |
| 15 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 16 | Channel | 7075-T6 Alclad, Sheet | Surface |
| 17 | Guide | 7075-T73511 Al Aly, Extrusion | Pitting |
| 18 | Stop | 7075-T7351 Al Aly, Plate | Pitting |
| 19 | Wedge | 6061-T651 Al Aly, Plate | Pitting |
| 20 | Support | 7075-T6 Alclad, Sheet | Surface |
| 21 | Shelf | 7075-T7351 Al Aly, Plate | Pitting |
| 22 | Tray | 7075-T6 Alclad, Sheet | Surface |

Figure 1. Avionic Bays (Sheet 12)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------------|----------------|
| 23 | Channel | 7075-T73511 Al Aly, Extrusion | Pitting |
| 24 | Fixture | Tin Plating on 7075-T7351 Al Aly | Surface |
| 25 | Former | 7075-T6 Alclad, Sheet | Surface |
| 26 | Guide | 7075-T76511 Al Aly, Extrusion | Pitting |
| 27 | Support | 7075-T76511 Al Aly, Extrusion | Pitting |
| 28 | Channel | 7075-T76511 Al Aly, Extrusion | Pitting |
| 29 | Beam | 7075-T76511 Al Aly, Extrusion | Pitting |

Figure 1. Avionic Bays (Sheet 13)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FORWARD FUSELAGE MAIN STRUCTURE ASSEMBLY SEALS AND SEALING

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |

Alphabetical Index

| Subject | Page No. |
|--------------------|----------|
| Introduction | 1 |
| Sealing..... | 1 |
| Seals | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. Sealing of the forward fuselage is for corrosion control and cockpit pressure containment. Sealing prevents loss of pressure, moisture entry, dissimilar metal contact, and provides a barrier between structure, skin, and the elements.

3. **SEALING.** Use MIL-S-83430, class B-4 sealing compound (WP010 00 and A1-F18AC-SRM-200, WP011 00), see figure 1. Use class B for fay, form in place, butt joint, and fastener sealing. MIL-S-8802 or MIL-S-81733 is the alternate, except when graphite epoxy structure or form in place door seals are used.

a. Removable covers/doors or access panels on mold line surfaces are sealed with form in place seals.

NOTE

Fay surface and butt joint sealing may be done simultaneously by being sure sealant squeeze out from the fay surfaces fills the butt joint gap.

b. The periphery of all external permanent skins, structure, components, or parts are fay surface sealed. This includes items attached with removable fasteners and do not require removal for scheduled maintenance, nose wheel well doors, fairing, and well, electronics compartments and doors.

c. The periphery of all external permanent skins, structure, components, or parts are butt joint or fillet sealed.

d. All permanent fasteners except aluminum rivets, see step e. below, installed in mold line and

other exterior categorized surfaces are installed wet with sealing compound.

e. Aluminum rivets in mold line surfaces and exterior categorized areas are installed wet with primer or sealant, except fast rivets, which are wet installed with primer.

4. **SEALS.** See figure 1. Seals are listed below:

a. EMI seal (1) part no. 74A314103 and weather seal (2) part no. 74A314103 on aft edge of door 18.

b. EMI seal (4) is installed in form in place seal, forward end and sides of door 18.

c. Weather seal (3) part no. 74A314074 on F/A-18A, F/A-18C and 74A314854 on F/A-18B, F/A-18D on front of door 7.

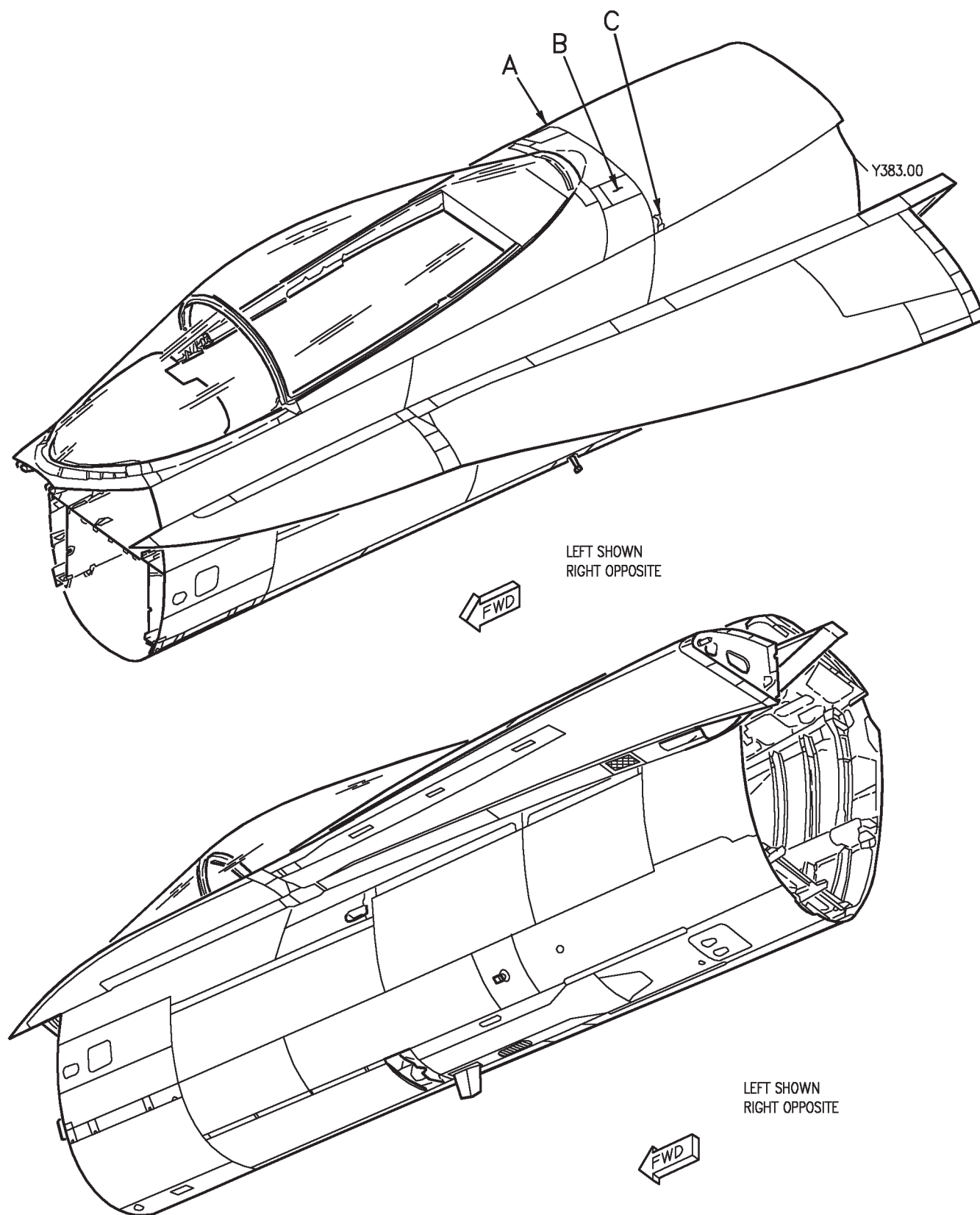


Figure 1. Seals and Sealing (Sheet 1)

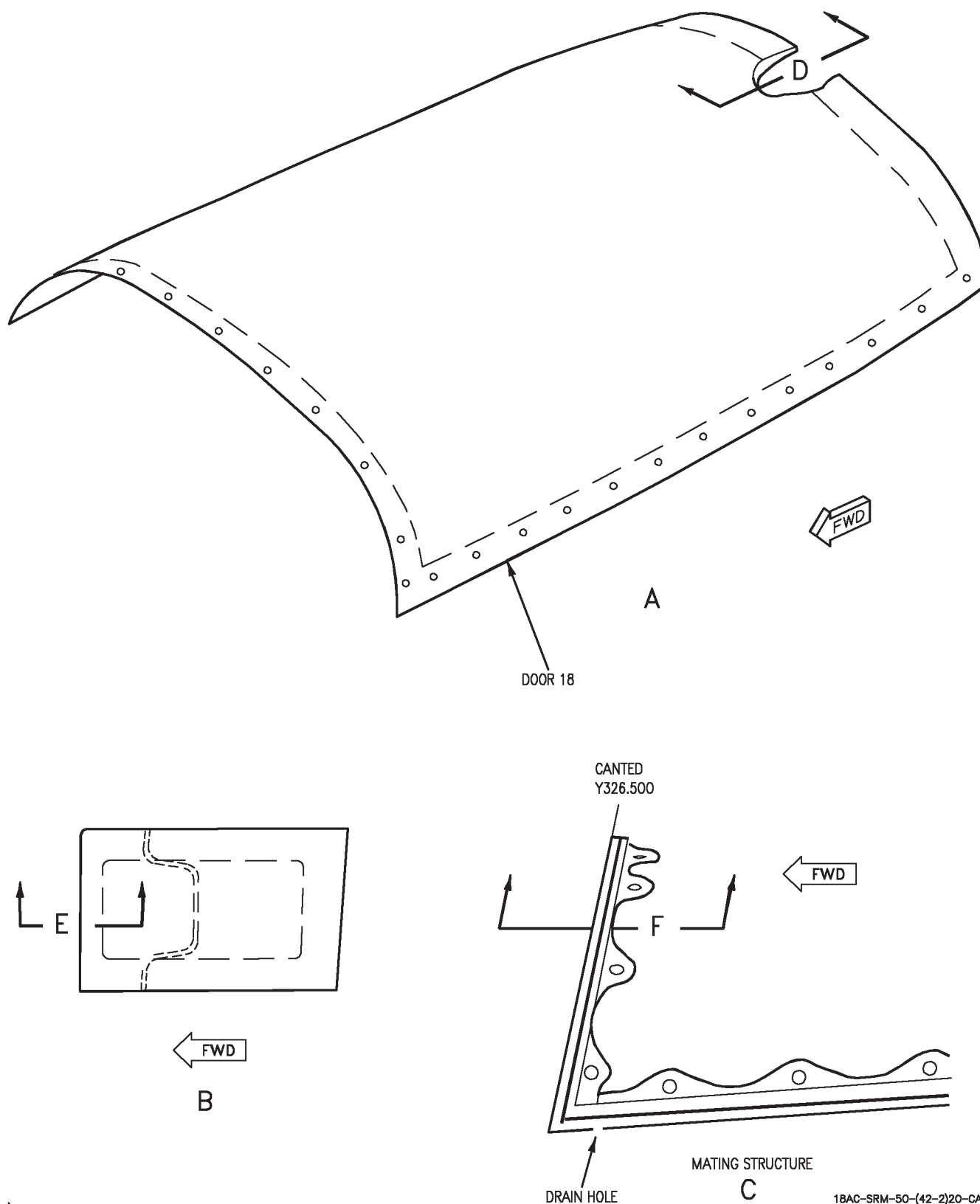
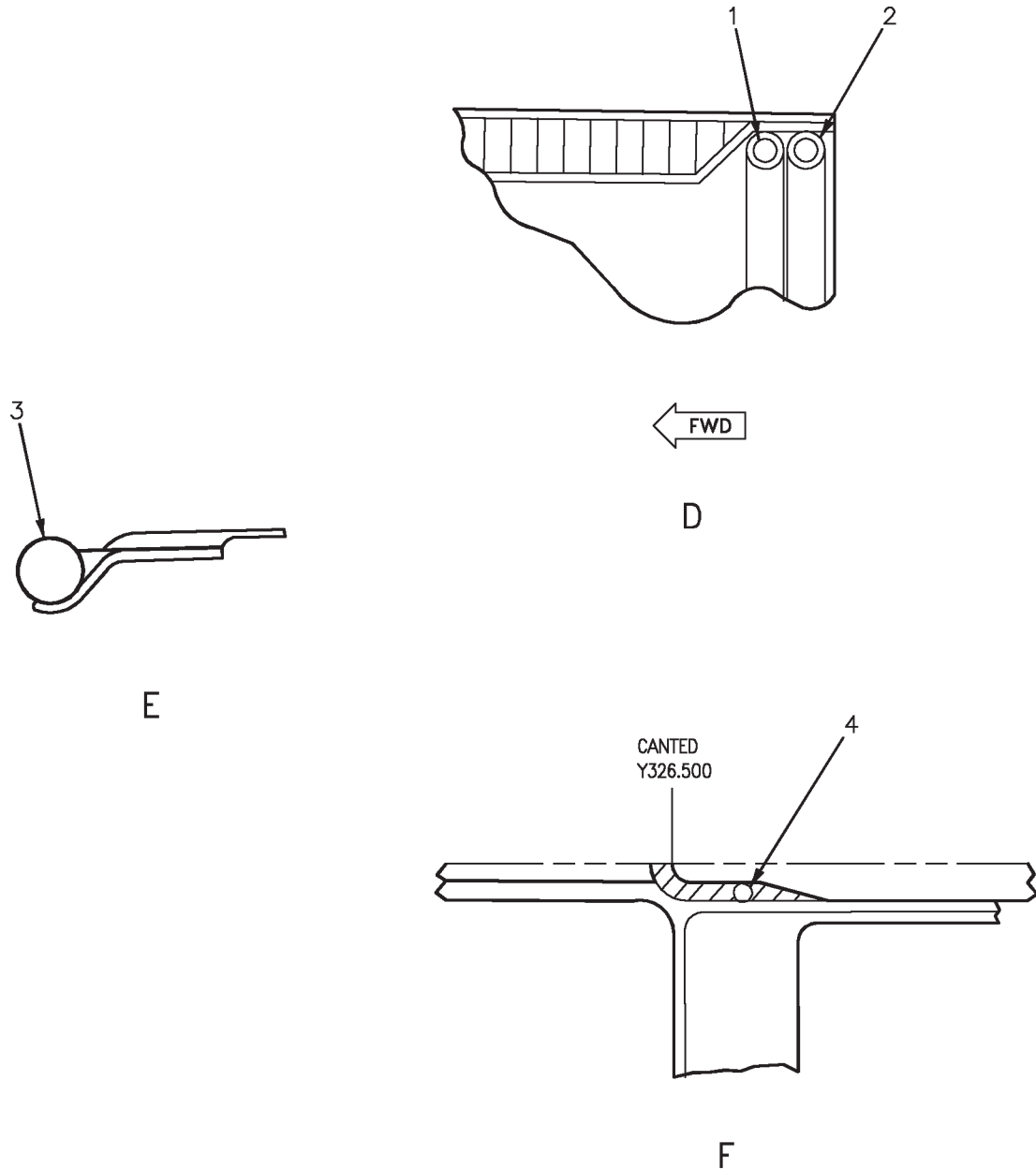


Figure 1. Seals and Sealing (Sheet 2)



| ITEM NO. | NOMENCLATURE |
|----------|--------------|
| 1 | EMI SEAL |
| 2 | WEATHER SEAL |
| 3 | WEATHER SEAL |
| 4 | EMI SEAL |

Figure 1. Seals and Sealing (Sheet 3)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FORWARD FUSELAGE MAIN STRUCTURE ASSEMBLY FINISH SYSTEM AND MARKINGS

Reference Material

| | |
|--|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Structure Repair, Forward Fuselage | A1-F18AE-SRM-650 |

Alphabetical Index

| Subject | Page No. |
|----------------------------|----------|
| Description | 1 |
| Aircraft Refinishing | 3 |
| Finish System | 2 |
| Markings..... | 3 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Forward fuselage, including the leading edge extension and fence, is constructed of aluminum, graphite epoxy, and steel. On 163985 AND UP, some parts require different damage evaluation which may affect finish system application. For identification of these parts, refer to applicable work package in A1-F18AE-SRM-650.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|---------------------------------|--|
| MIL-P-23377 TY1 | Primer |
| MIL-P-85582, TY1CL1 or CL2 | Primer |
| MIL-P-23377, TY2 | Primer |
| MIL-P-85582, TY2CL1 | Primer |
| MIL-C-83286 | Aliphatic Polyurethane Enamel |
| MIL-C-85285, TY1 | Coating, Polyurethane, High Solids |

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|---------|---|
| 8681 | Polyurethane Tape (3.00 Inch Wide) |
| 822X430 | Antichafe Compound Base, Gray, FED-STD-595 Color No. 36375 |
| 822X694 | Antichafe Compound Base, Gray, FED-STD-595 Color No. 36320 |
| 910X377 | Antichafe Compound, Curing Solution |

3. FINISH SYSTEM. See figure 1.**WARNING**

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

b. One coat MIL-P-23377, Type 2, Class 1 primer on mold line surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) White, FED-STD-595 color no. 17925, aliphatic polyurethane enamel:

(a) Inner surface of avionic doors and bays, (doors 10, 13, and 14).

(b) Inner surface of power receptacle door and bay.

(c) Inner surface of dorsal deck.

(d) Boarding ladder and inner well surfaces.

(e) Nose landing gear wheel well surfaces.

(2) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.

(3) Gray, FED-STD-595 color no. 36320, aliphatic polyurethane enamel.

(4) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.

(5) Gray, FED-STD-595 color no. 35237, aliphatic polyurethane enamel.

d. Antichafe coating is applied to leading edges of doors 17 and 96. Color of antichafe coating to match adjacent area. For antichafe coating preparation and application (WP012 00).

e. Apply three inch wide, 8681 polyurethane tape to the leading edge of antenna. See figure 1 for

location. For polyurethane tape application (WP012 00).

f. Apply walkway coating to left and right leading edge extension as shown on figure 1. For walkway coating preparation and application (WP012 00).

4. **MARKINGS.** See figures 2 and 3.

a. Markings are silk screen applied using contrasting commercial gray enamel. Use table 1 to determine applicable marking color number.

5. **AIRCRAFT REFINISHING.** On 161353 THRU 161925, if complete aircraft requires refinishing, use finish system color diagram shown on figure 1 for 161926 THRU 163175.

Table 1. Marking Color Number

| Finish System Color Number | Marking Color Number |
|---|--|
| <div>3</div> Gray, FED-STD-595 color no. 36320 <div>4</div> Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36375 |
| <div>1</div> Gray, FED-STD-595 color no. 36375 <div>2</div> Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36320 |
| Gray, FED-STD-595 color no. 36495 | Gray, FED-STD-595 color no. 36375 |
| LEGEND <div>1</div> 161353 THRU 161925. <div>2</div> 161926 AND UP. <div>3</div> F/A-18A 161926 THRU 161929. <div>4</div> 161930 AND UP. | |

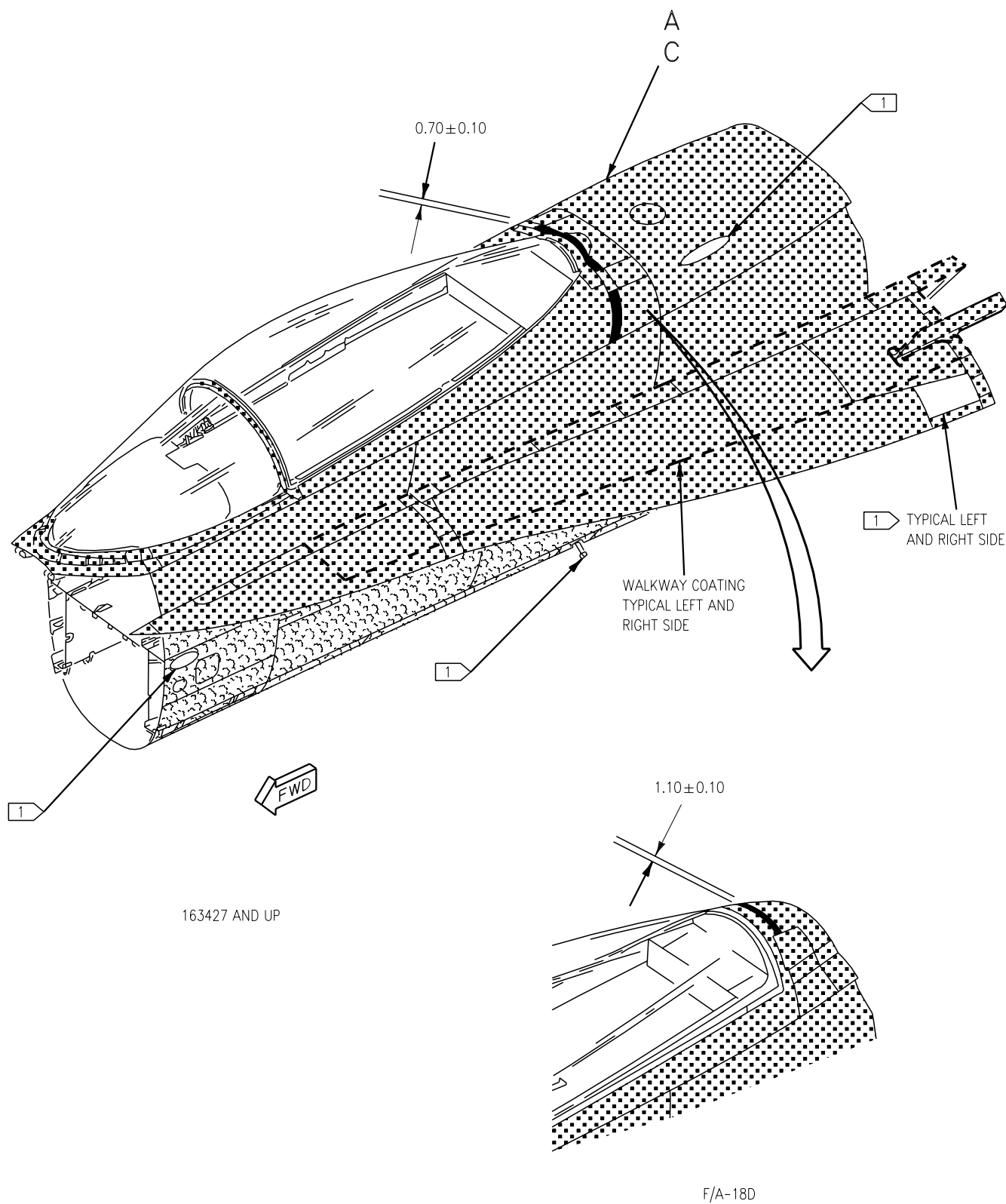


Figure 1. Finish System (Sheet 1)

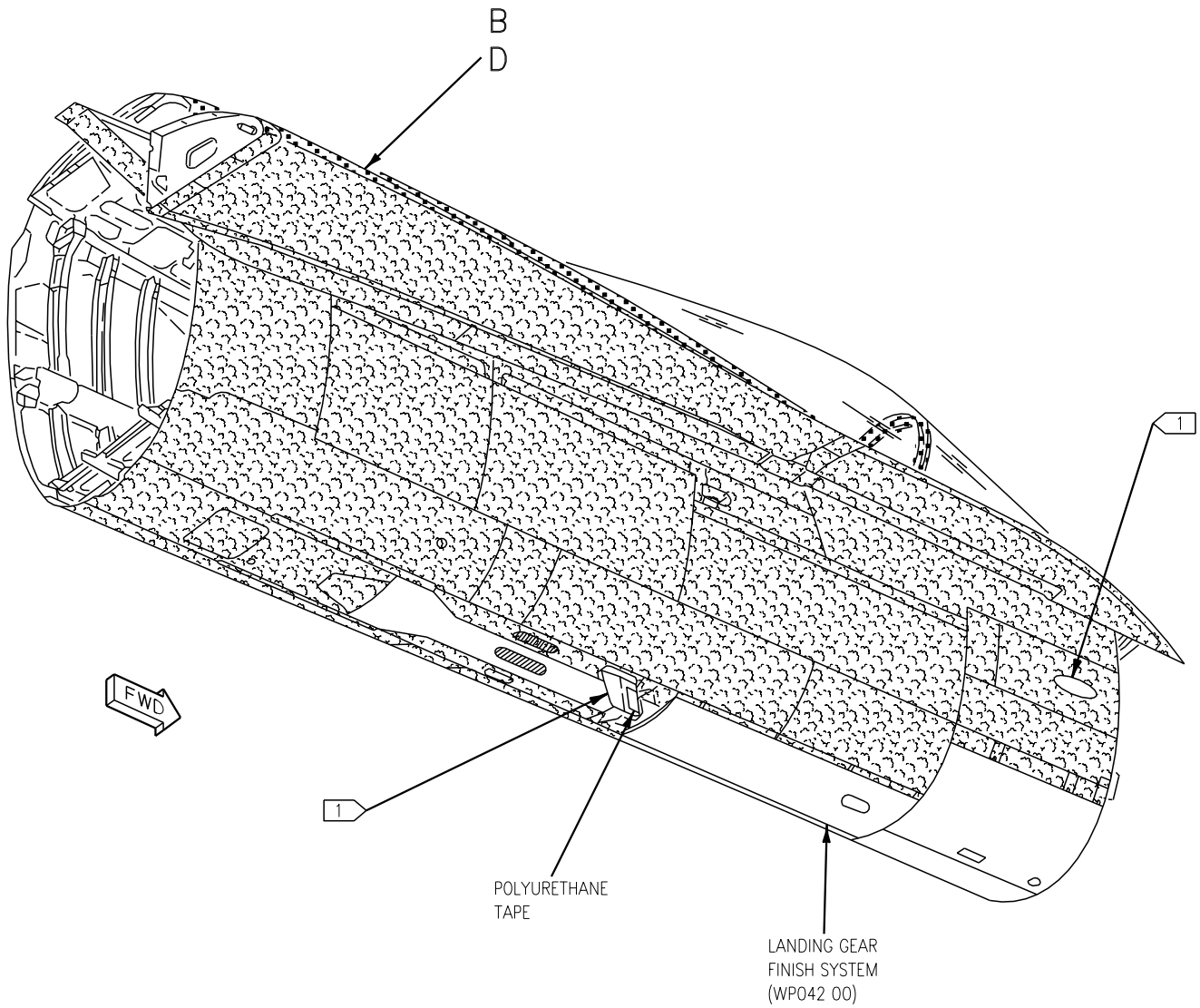


Figure 1. Finish System (Sheet 2)

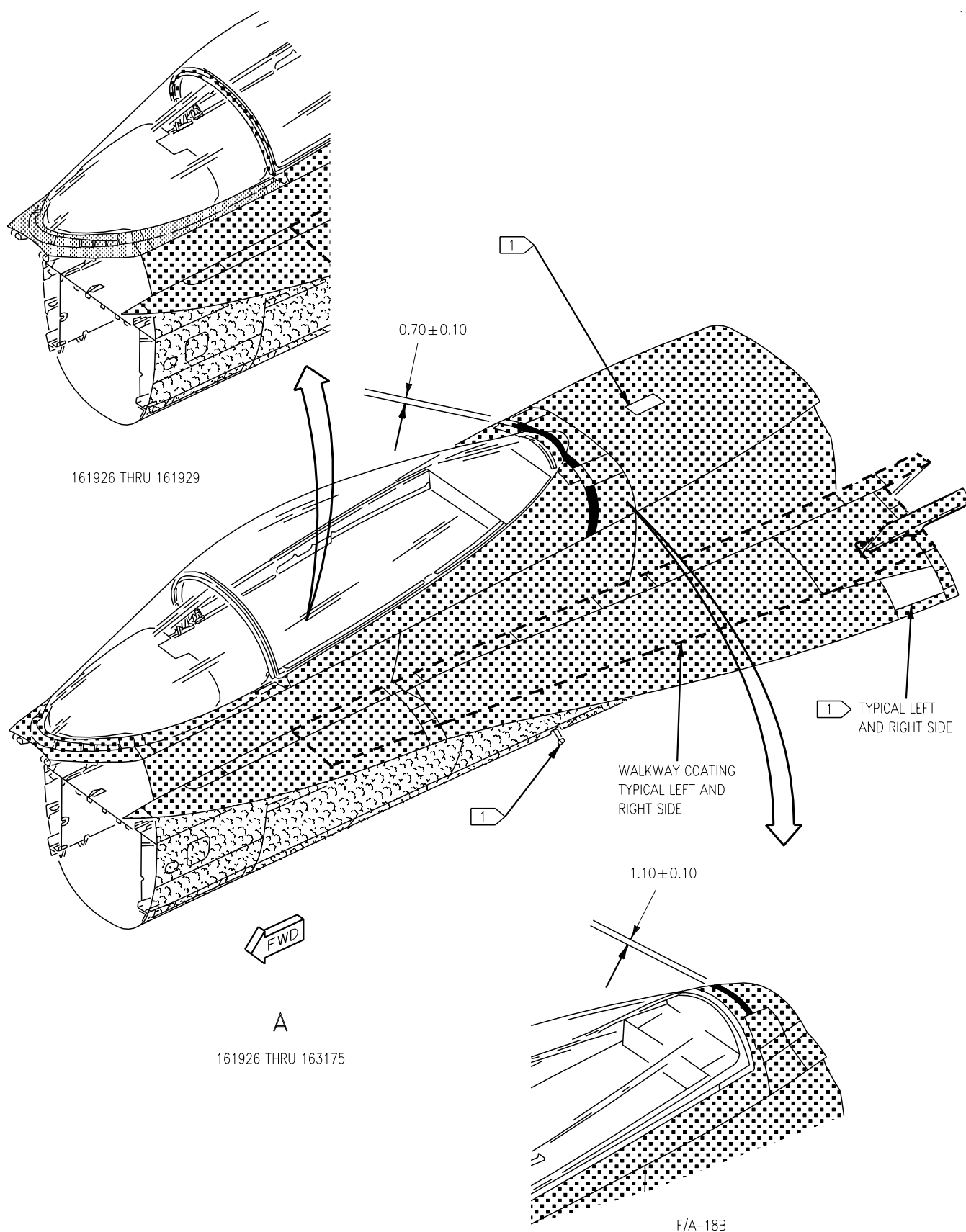


Figure 1. Finish System (Sheet 3)

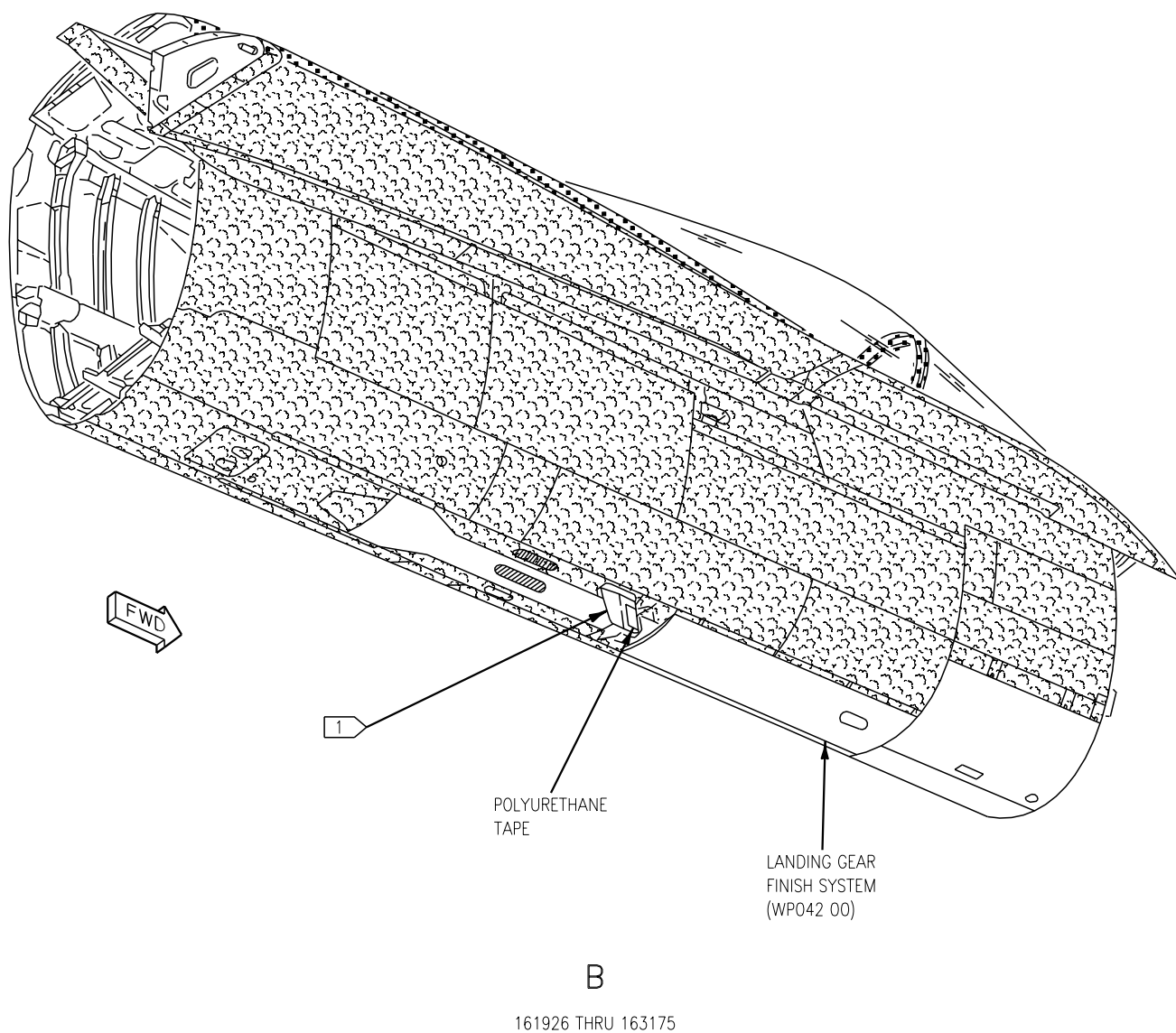


Figure 1. Finish System (Sheet 4)

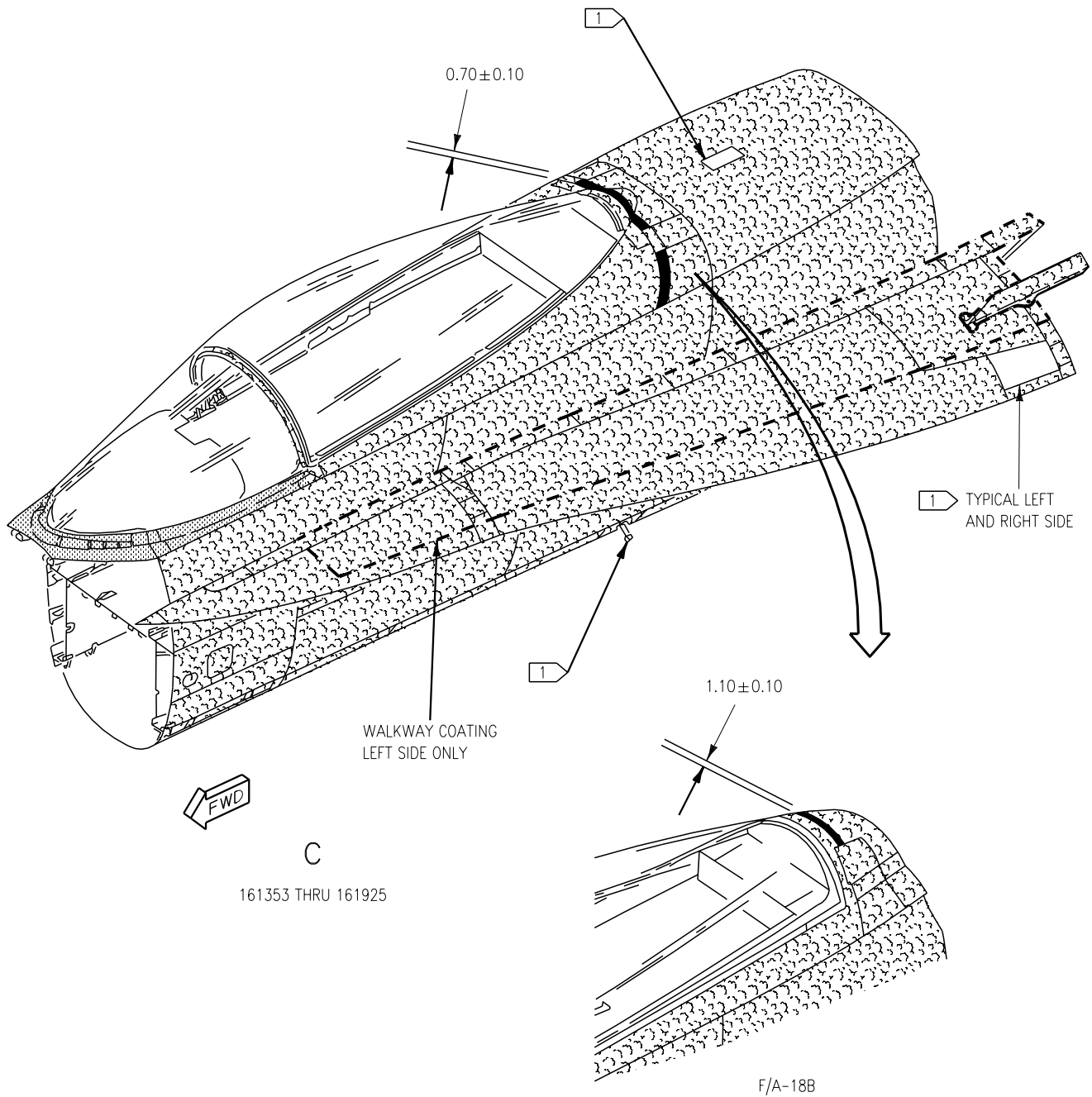
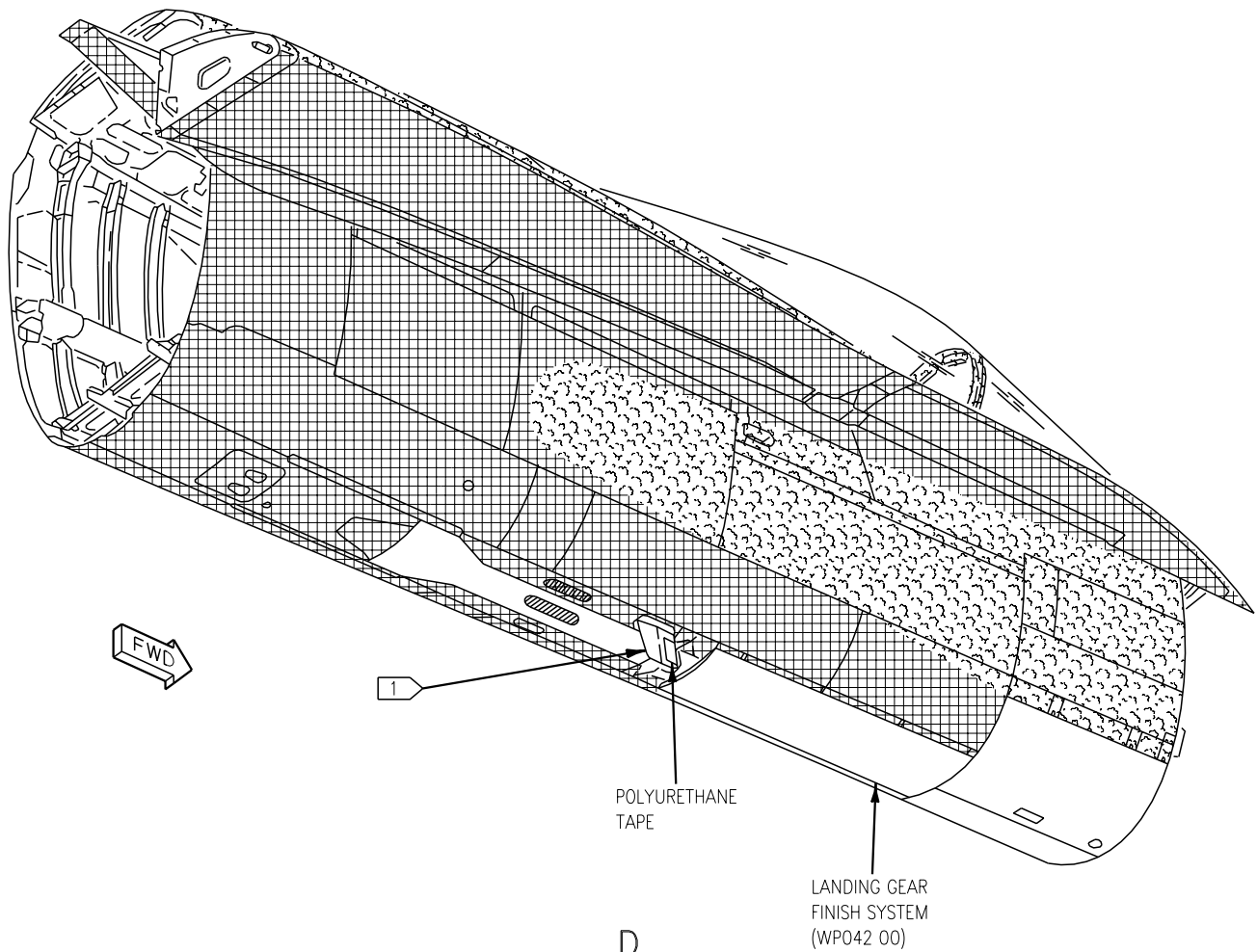








Figure 1. Finish System (Sheet 5)



161353 THRU 161925

LEGEND

-  GRAY, FED-STD-595 COLOR NO. 36320 ALIPHATIC POLYURETHANE ENAMEL.
-  GRAY, FED-STD-595 COLOR NO. 36375 ALIPHATIC POLYURETHANE ENAMEL.
-  GRAY, FED-STD-595 COLOR NO. 36495 ALIPHATIC POLYURETHANE ENAMEL.
-  GRAY, FED-STD-595 COLOR NO. 35237 ALIPHATIC POLYURETHANE ENAMEL.
-  WALKWAY COATING, COLOR TO MATCH ADJACENT AREA.
-  ANTICHAFFE COATING, COLOR TO MATCH ADJACENT AREA.

 DO NOT PAINT

Figure 1. Finish System (Sheet 6)

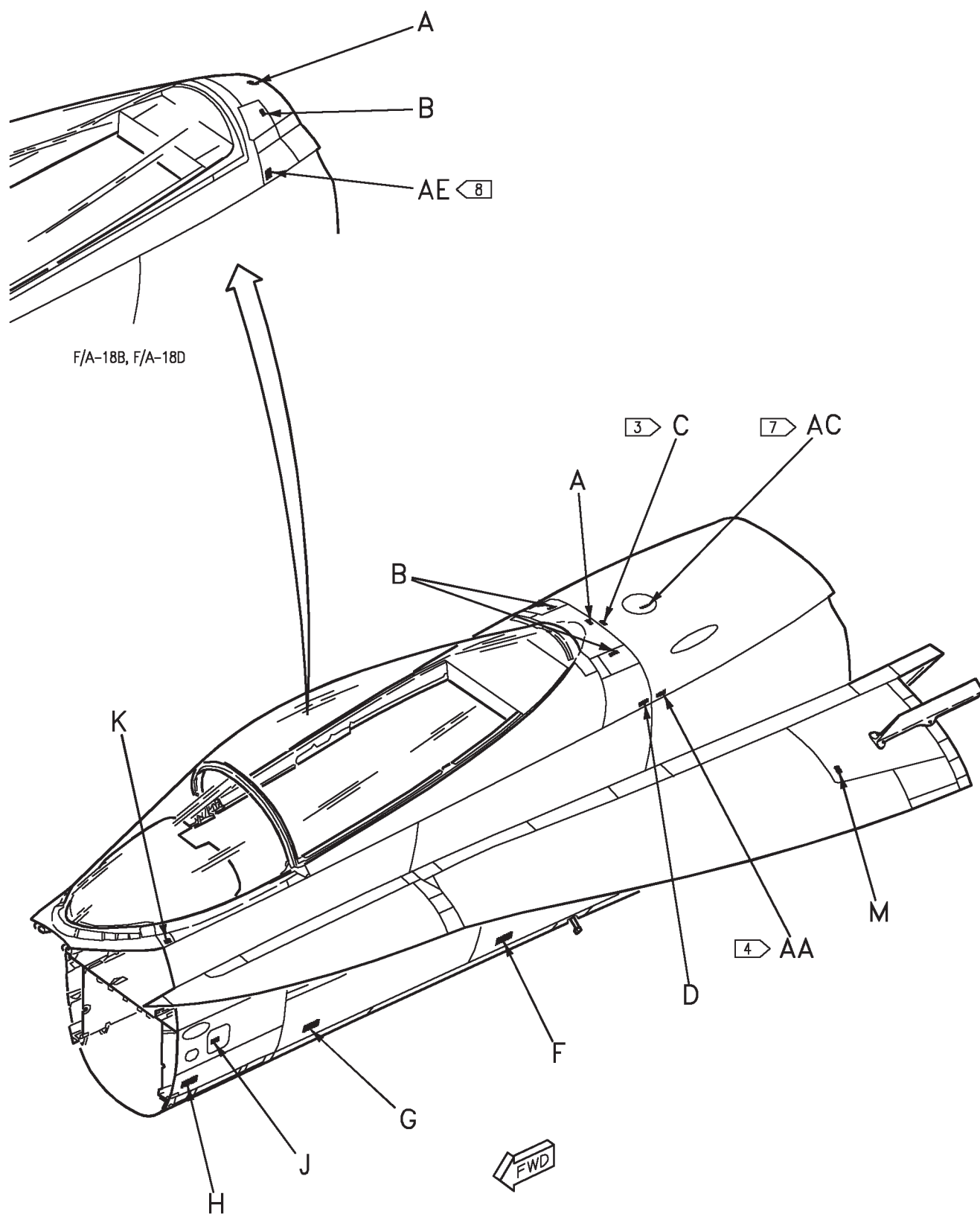


Figure 2. Door Markings (Sheet 1)

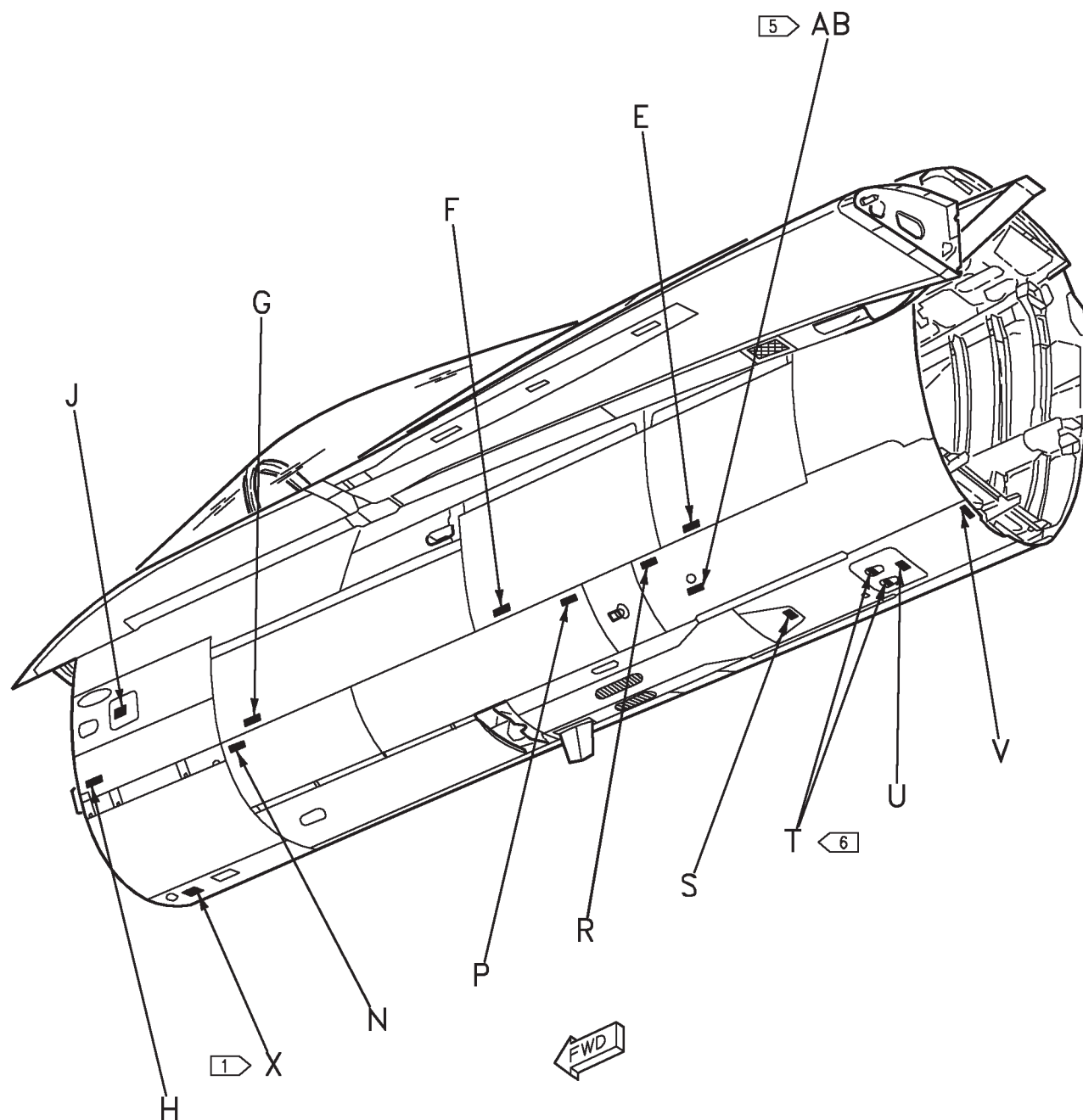


Figure 2. Door Markings (Sheet 2)

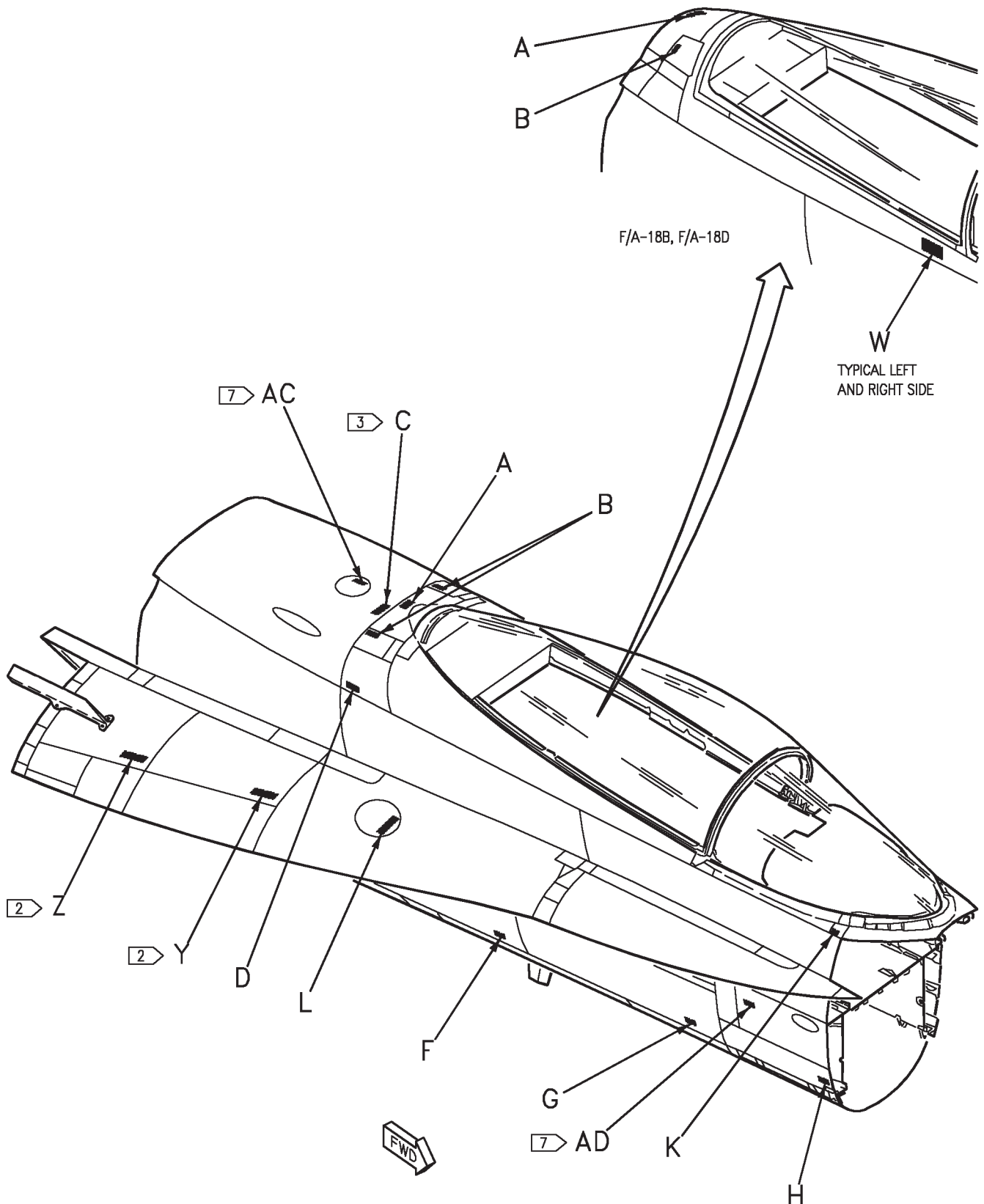


Figure 2. Door Markings (Sheet 3)

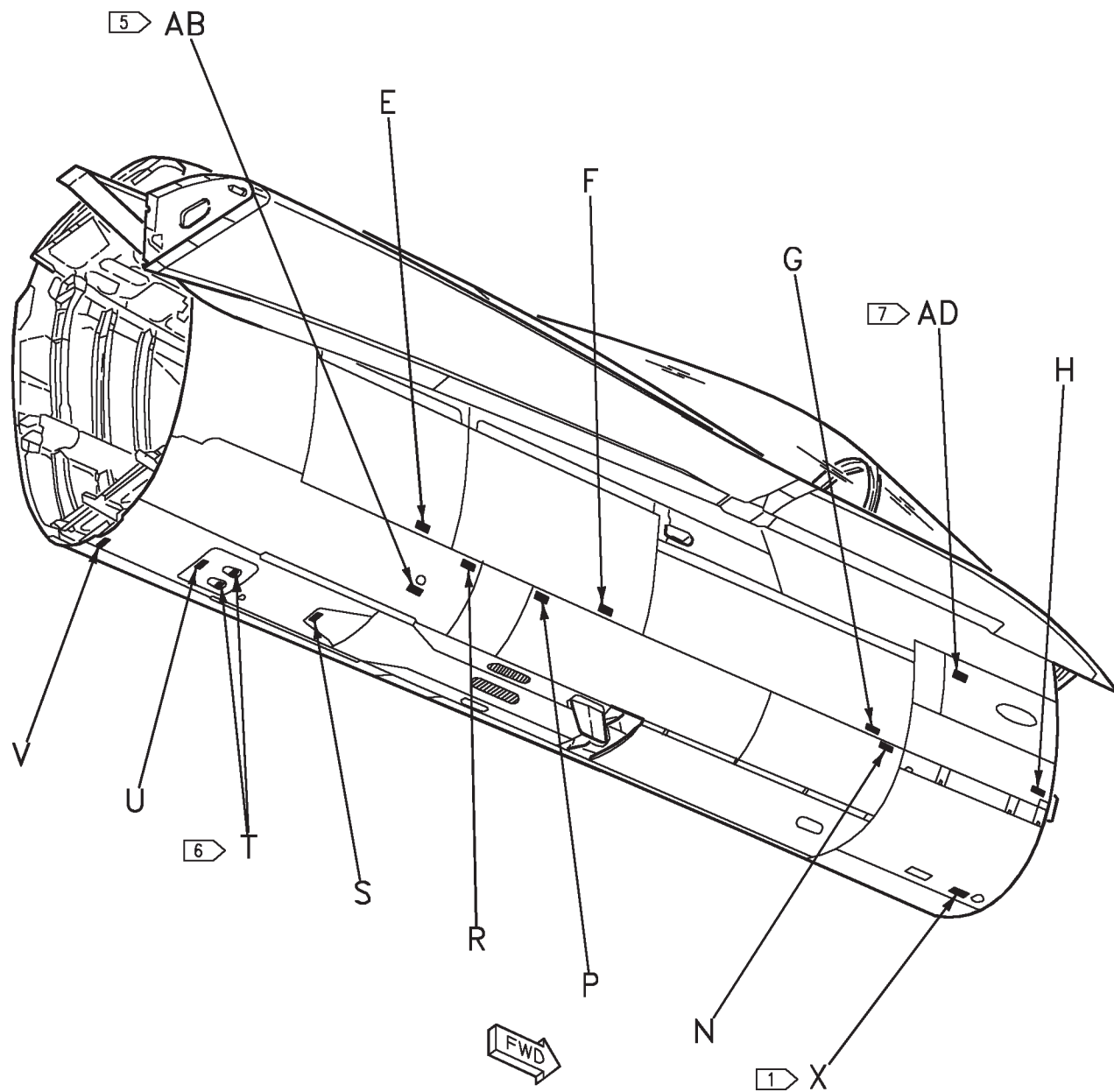


Figure 2. Door Markings (Sheet 4)

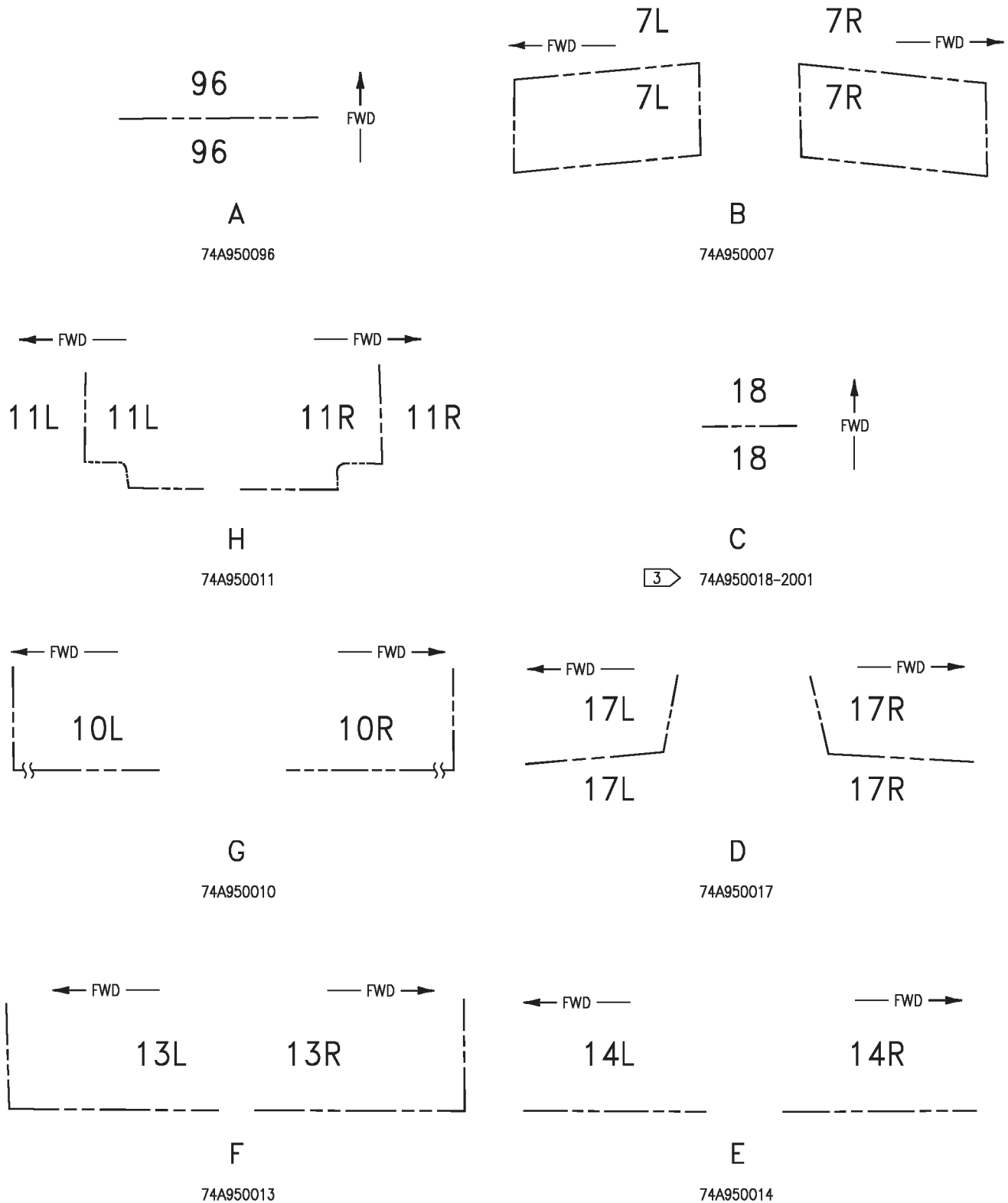


Figure 2. Door Markings (Sheet 5)

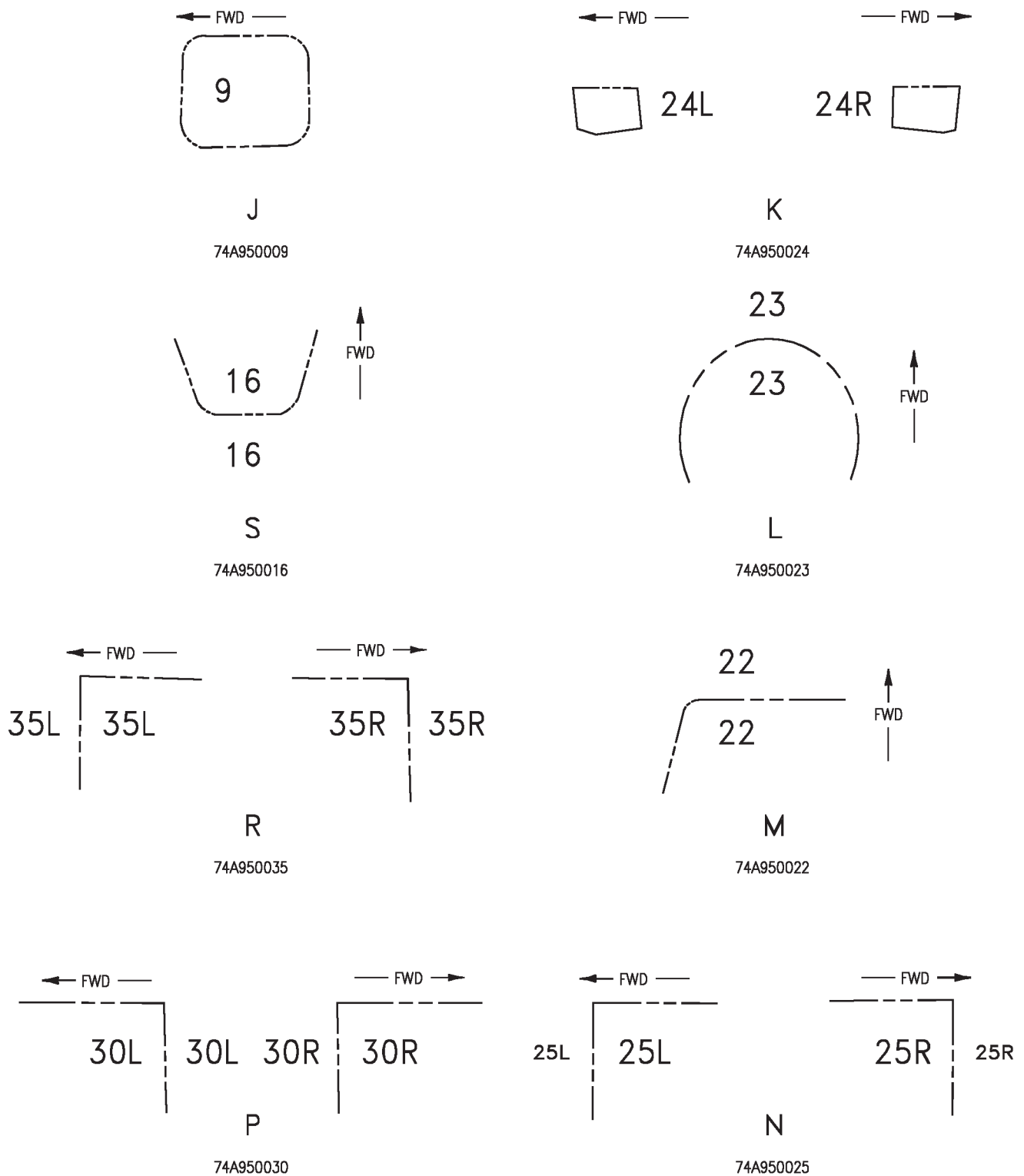


Figure 2. Door Markings (Sheet 6)

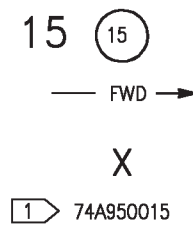
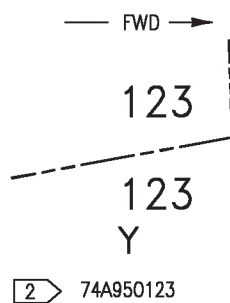
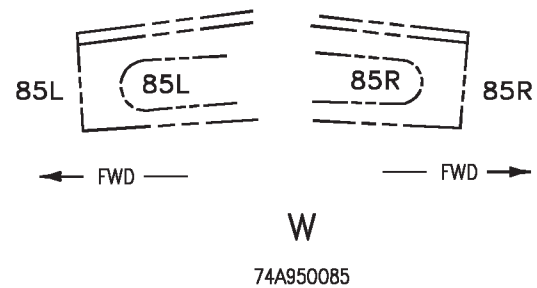
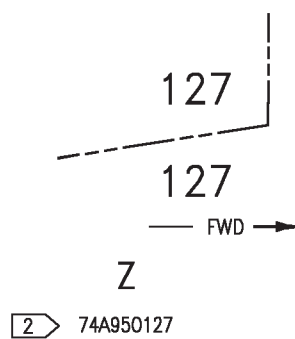
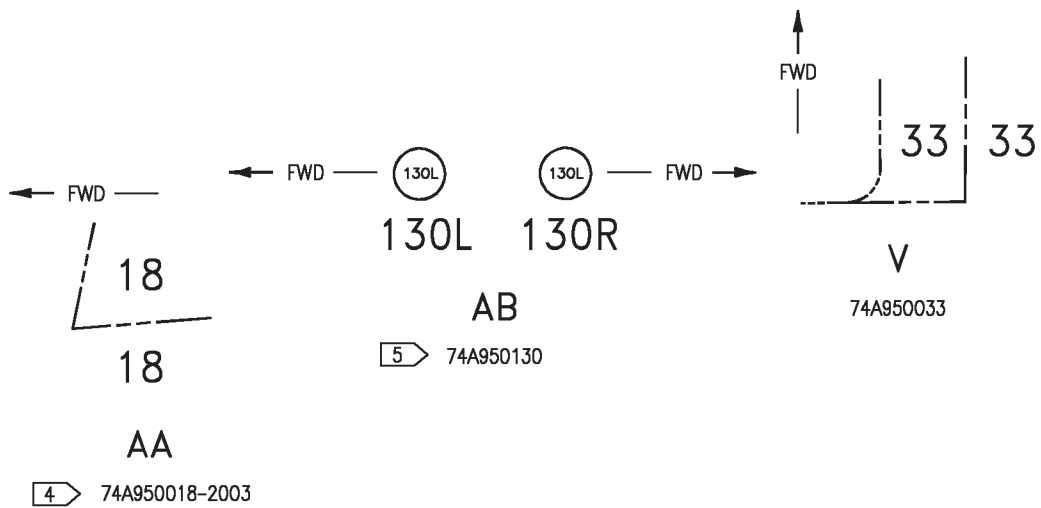
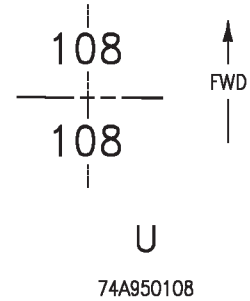
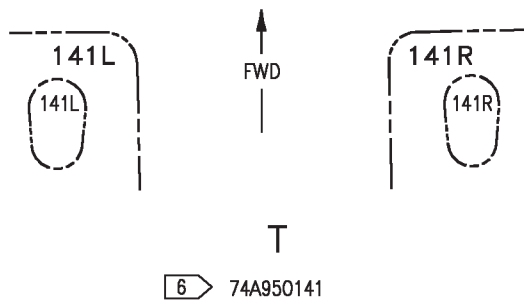
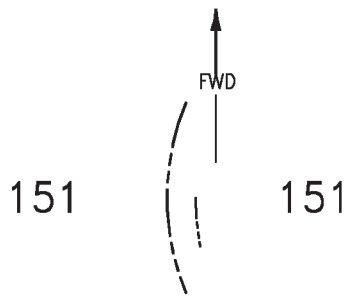
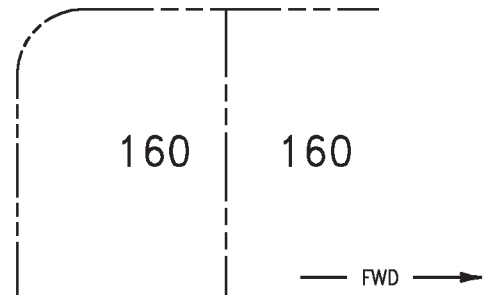


Figure 2. Door Markings (Sheet 7)



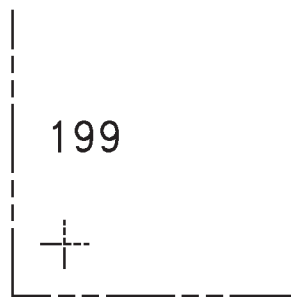
AC

7 74A950151



AD

7 74A950160



199

← FWD →

AE

8 74A950199

LEGEND

- 1 161942 THRU 163175.
- 2 162394 AND UP.
- 3 F/A-18A 161353 THRU 162893.
- 4 F/A-18A, F/A-18C 162894 AND UP.
- 5 163119 AND UP.
- 6 F/A-18A, F/A-18B.
- 7 F/A-18C 163427 AND UP.
- 8 F/A-18D 164649 AND UP.

Figure 2. Door Markings (Sheet 8)

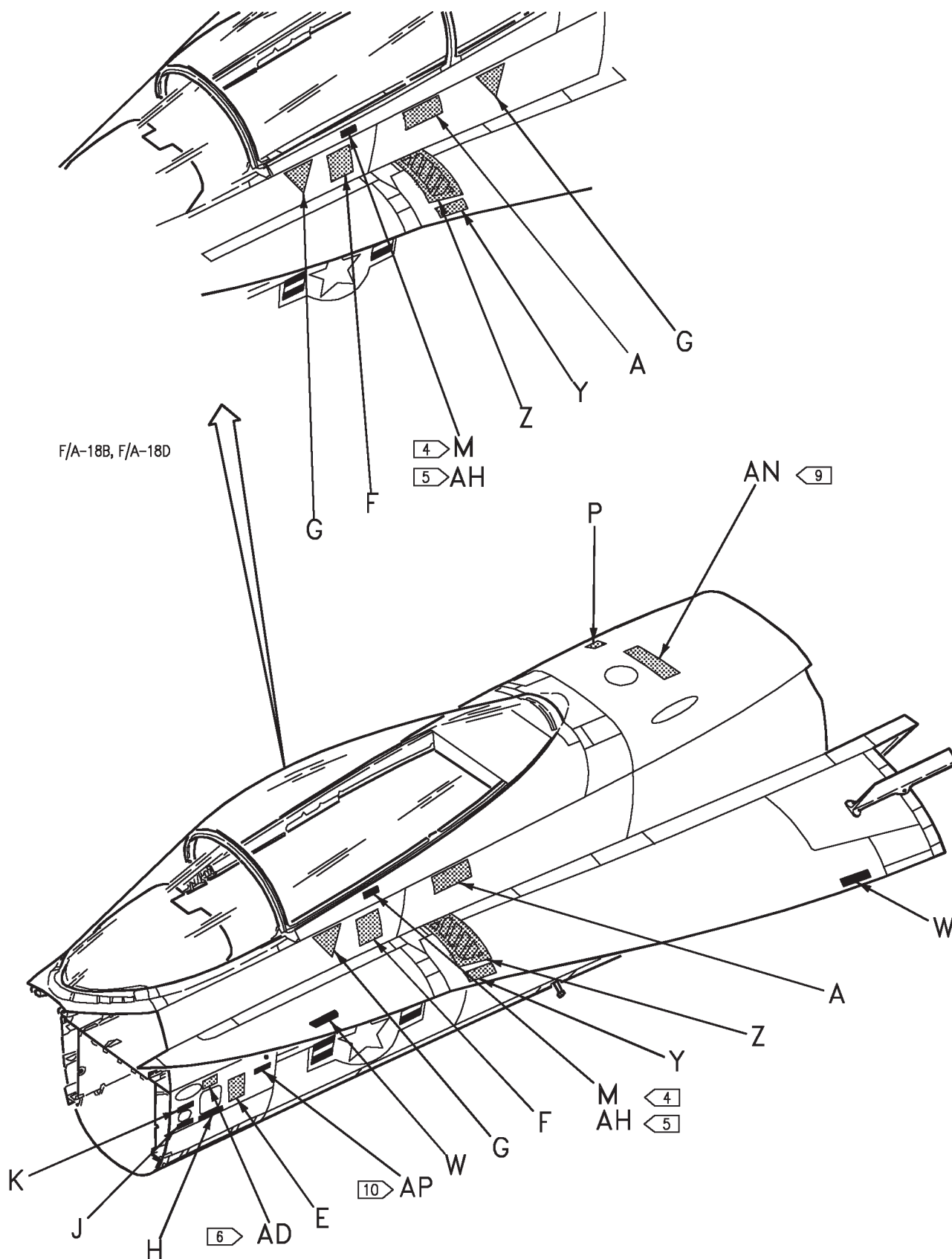


Figure 3. Instructional Markings and Insignia (Sheet 1)

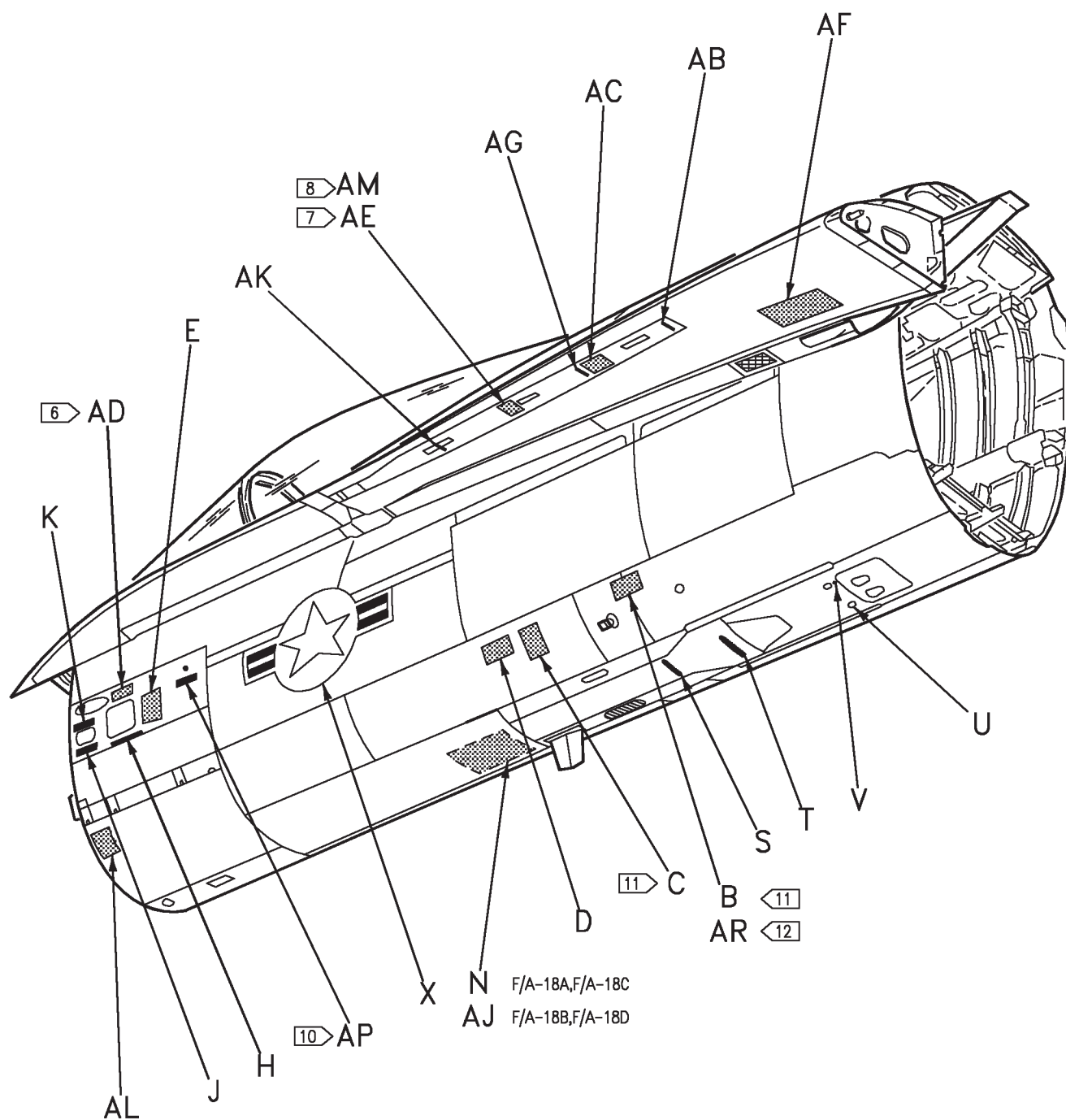
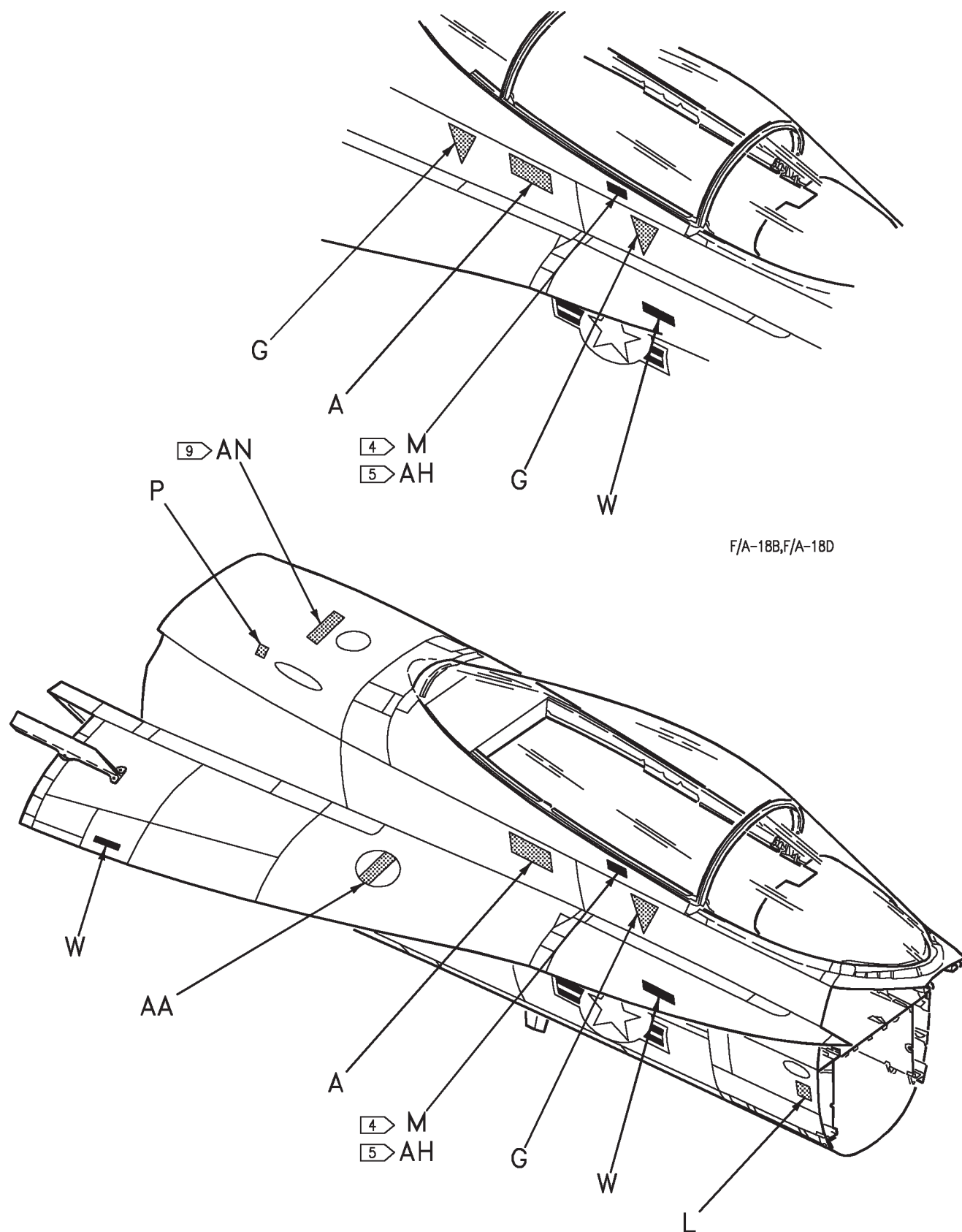


Figure 3. Instructional Markings and Insignia (Sheet 2)



18AC-SRM-50-(45-3)23-CAT1

Figure 3. Instructional Markings and Insignia (Sheet 3)

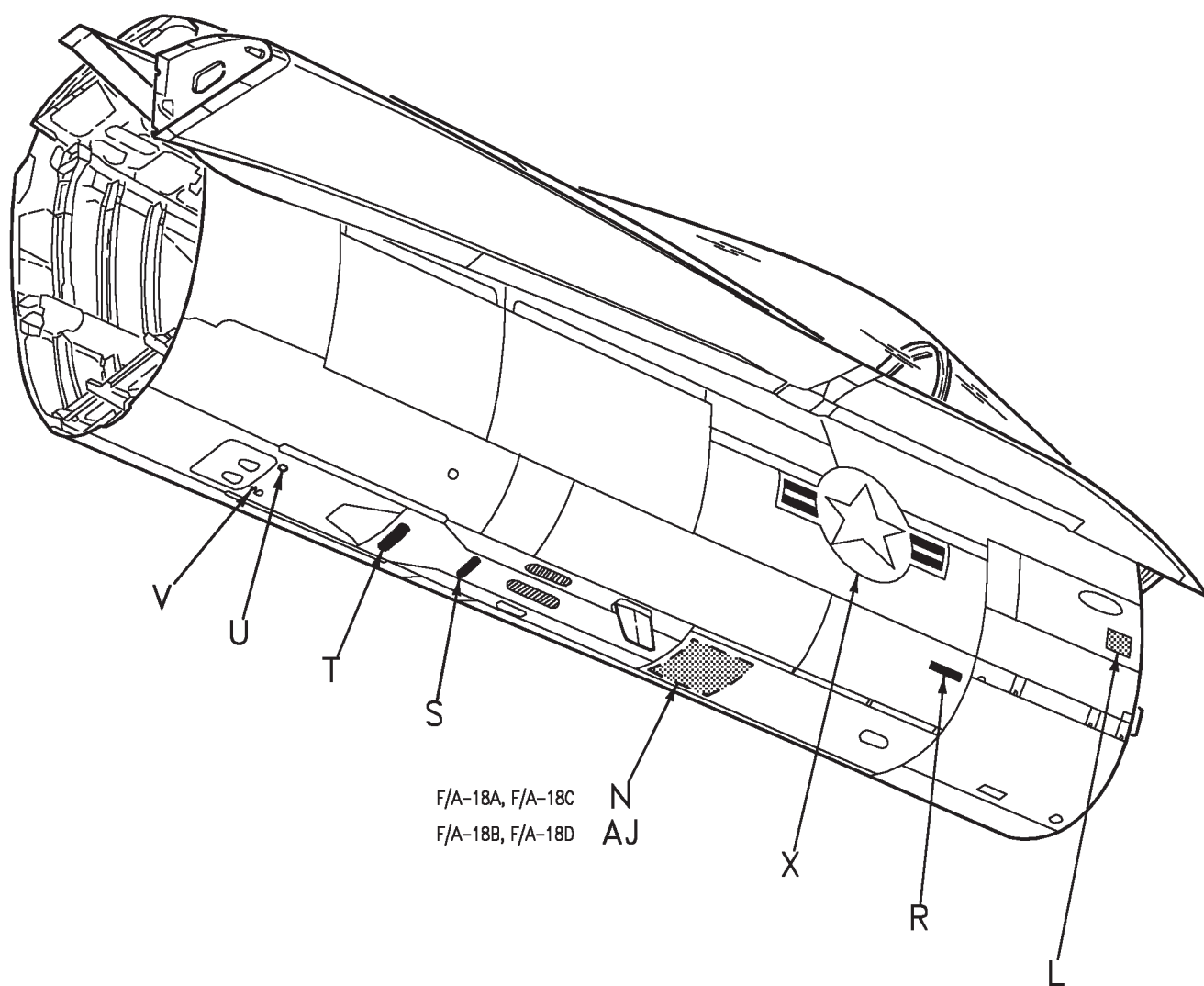
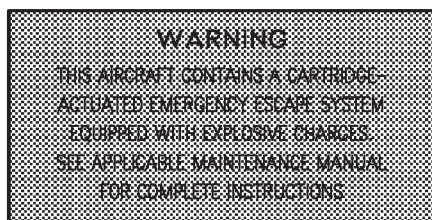


Figure 3. Instructional Markings and Insignia (Sheet 4)



A

74A950316



LIQUID
COOLANT

K

74A950348

GUN ELECT.
SAFETY SWITCH

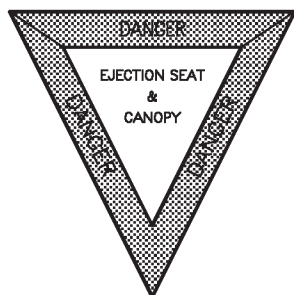
J

74A950328

NORMAL CANOPY CONTROL
INSIDE

H

74A950313



G

74A950309

WARNING

LIQUID OXYGEN
VENT



B

11 74A950346-2003



LIQUID
10 LITERS

C

11 74A950343



SIDE LADDER BRACE
RECEPTACLE

D

74A950323



115/200 VAC
400 HZ

E

74A950331

CANOPY OPEN



CANOPY EXTERNAL
MANUAL OPENING
RECEPTACLE

F

74A950350

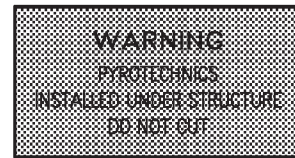
Figure 3. Instructional Markings and Insignia (Sheet 5)



F-40,F-44

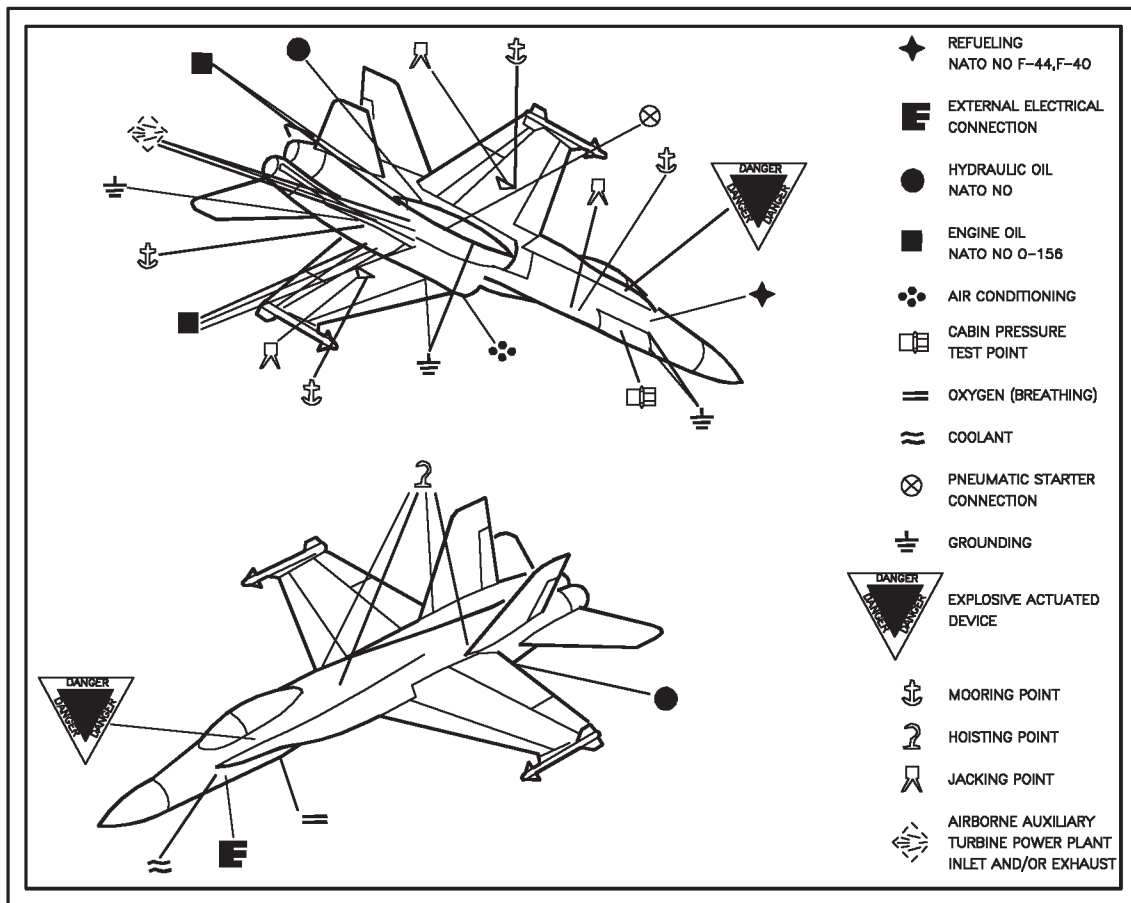
L

74A950340



M

4 74A950358-2003



N

3 74A950319-2001
F/A-18A,F/A-18C

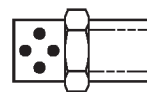
Figure 3. Instructional Markings and Insignia (Sheet 6)



GROUND (EARTH)
HERE

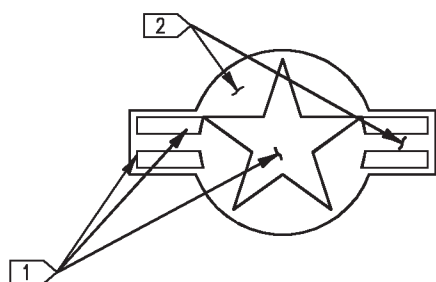
P

74A950337-2003



R

74A950342



X

13 74A950379-2001



S

74A950332

NO STEP

W

74A950304



T

74A950335



V

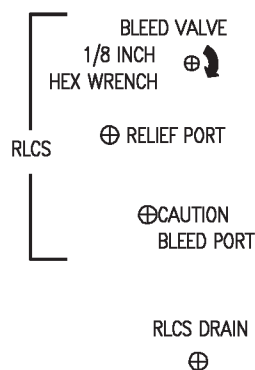
74A950357



U

74A950356

Figure 3. Instructional Markings and Insignia (Sheet 7)



AF

74A950324

LADDER EXTENSION

1. RELEASE FWD & AFT LATCHES
2. ROTATE LADDER FULL DOWN
& FWD
3. ROTATE SIDE BRACE UP
& ENGAGE RECEPTACLE

AE

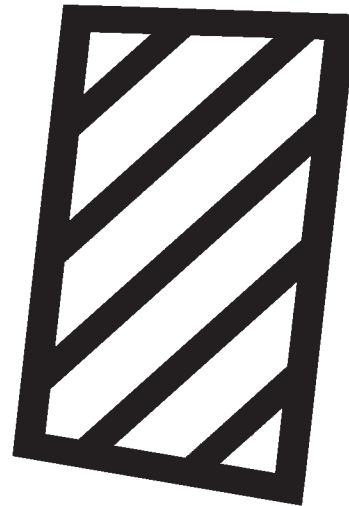
7 74A950354-2005

CAUTION

NO UNFILTERED EXTERNAL
POWER TO BE CONNECTED
ON CARRIER DECK

AD

6 74A950372



Z

74A950360

CAUTION

USE ONLY
NON-MAGNETIC
FASTENERS

AA

74A950322

AFT LATCH

AB

74A950353-2005

LADDER STOWAGE

1. DISENGAGE SIDE BRACE
& ROTATE FULL DOWN
2. UNLOCK DRAG BRACE;
ROTATE LADDER AFT & FULL
UP TO ENGAGE
3. ENGAGE & LOCK FWD &
AFT LATCHES

AC

74A950354-2003

Figure 3. Instructional Markings and Insignia (Sheet 8)

SAFETY LATCH

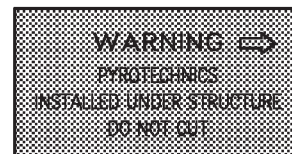
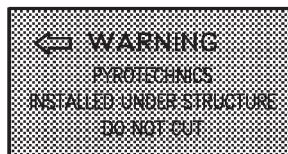
AG

74A950353-2003

FWD LATCH

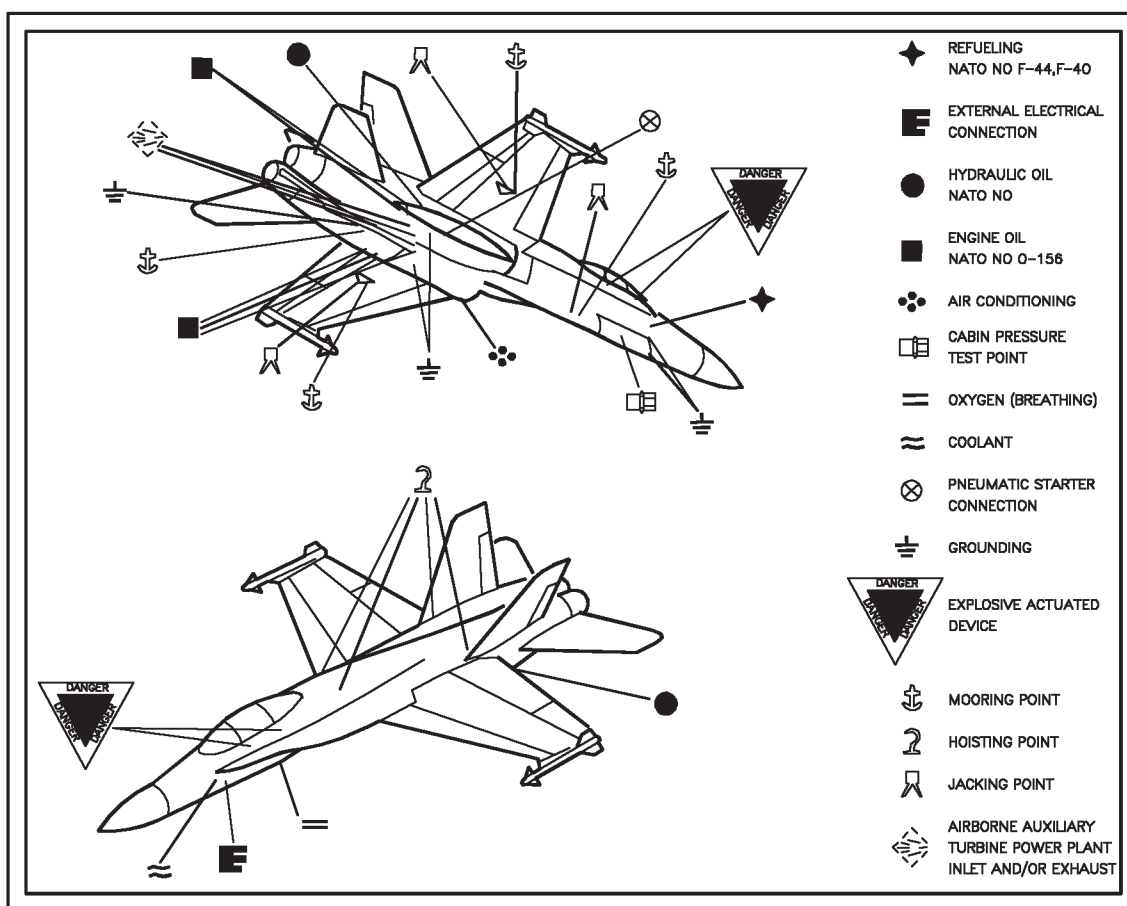
AK

74A950353-2001



AH

5 74A950358-2005,-2006



AJ

3 74A950319-2003
F/A-18B,F/A-18D

Figure 3. Instructional Markings and Insignia (Sheet 9)



GROUND (EARTH)
LOCATED INSIDE

AL

74A950337-2005



AR

12 74A950346-2005

CHAFF DISP.
SAFETY SWITCH

AP

10 74A950377

LADDER EXTENSION

1. RELEASE FWD & AFT LATCHES
2. SUPPORTING LADDER ROTATE
LADDER FULL DOWN AND FWD
3. ROTATE SIDE BRACE UP
& ENGAGE RECEPTACLE

AM

8 74A950354-2007

CAUTION

DISCONNECT ELECTRICAL
CABLES BEHIND DOOR 151
BEFORE DOOR 18 REMOVAL

AN

9 74A950310

LEGEND

- | | |
|--|---|
| <p>1 SPRAY APPLICATION, GRAY, FED-STD-595 COLOR NO. 36375, ALIPHATIC POLYURETHANE ENAMEL.</p> <p>2 SPRAY APPLICATION, GRAY, FED-STD-595 COLOR NO. 36320, ALIPHATIC POLYURETHANE ENAMEL.</p> <p>3 SCOTCH-CAL DECAL ON INSIDE OF DOOR.</p> <p>4 F/A-18A 161353 F/A-18B 161354.</p> <p>5 161355 AND UP.</p> <p>6 161360 AND UP.</p> | <p>7 161353 THRU 161968.</p> <p>8 161969 AND UP.</p> <p>9 F/A-18C 163427 AND UP.</p> <p>10 163985 AND UP.</p> <p>11 161353 THRU 164068.</p> <p>12 164196 AND UP.</p> <p>13 164645 AND UP.</p> |
|--|---|

Figure 3. Instructional Markings and Insignia (Sheet 10)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

INNER WING CORROSION PRONE AREAS

Reference Material

| | |
|---|------------------|
| Structure Repair, Wing..... | A1-F18AC-SRM-210 |
| Wing Structure Group Index | WP001 01 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning..... | WP006 00 |
| Stripping..... | WP007 00 |
| Chemical Treatment..... | WP008 00 |
| Inner and Outer Wing Finish System and Markings | WP027 00 |
| Structure Repair, Wing..... | A1-F18AE-SRM-600 |
| Wing Structure Group Index | WP001 01 |

Alphabetical Index

| Subject | Page No. |
|--|----------|
| Description | 2 |
| Chemical Treatment | 4 |
| Classification of Critical Items/Areas..... | 4 |
| Cleaning..... | 3 |
| Corrosion Damage Evaluation and Limits | 4 |
| Corrosion Damage Repair | 4 |
| Corrosion Inspection..... | 3 |
| Corrosion Prone Areas..... | 2 |
| Corrosion Removal..... | 4 |
| Finish System and Markings..... | 4 |
| Stripping..... | 4 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The inner wing is made up of the torque box, trailing edge area, trailing edge flap shroud, trailing edge flap, and inboard flap. Materials used are graphite epoxy composite and aluminum alloys. Finish system is primer and polyurethane coatings.

3. CORROSION PRONE AREAS.

- a. Dissimilar metal contact.
- b. Water intrusion/entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Finish system/protection system damage.

4. Inboard Flap, 161353 THRU 161519. See figure 1.

a. The main spar is 7050-T736 aluminum alloy forging, most other components are 7075-T6 alclad and 7075-T76 alclad sheet, except the leading edge cap is 6061 aluminum alloy sheet. Some 7075-T73 aluminum alloy plate, and 1100-H14 aluminum alloy foil are also used.

b. Finish system/protection system damage may occur from operational environments, tools/equipment, and personnel.

c. A filler resin build up covers the 7075-T76 alclad sheet skin and tapers out toward the trailing edge exposing some of the upper surface skin to the environment.

5. Inboard Flap, 161520 AND UP. See figure 1.

a. The main spar is 7050-T736 aluminum alloy forging, most other components are 7075-T6 alclad and 7075-T76 alclad sheet, except the leading edge cap is 6061 aluminum alloy sheet. Some 7075-T73 aluminum alloy plate, and 1100-H14 aluminum alloy foil are also used.

b. Finish system/protection system damage may occur from operational environments, tools/equipment, and personnel.

6. Torque Box. See figure 2.

a. The torque box is graphite epoxy skin over metallic structure.

b. Spar and ribs are 7050-T73652 aluminum alloy forging and few other parts are 7050-T73651 aluminum alloy plate, 6Al-4V titanium, and 7075-T6 alclad.

c. Water entering the torque box most commonly will be with fuel. Water may settle in the sump areas and with time may damage the fuel tank coatings at points where graphite epoxy and aluminum alloys join, causing dissimilar metal corrosion.

d. Upper mold line skin:

(1) Seals and covers are attached to the upper mold line skin. They are 7075-T6 and 7075-T7351 alclad sheet fastened and sealed to graphite epoxy laminate. If finish system/protection system damage occurs, dissimilar metal corrosion may appear.

e. Lower mold line skin:

(1) Trailing edge flap hinges, covers, doors, and seals are attached to the lower mold line skin. The trailing edge flap hinges are 7050-T736 aluminum alloy forgings and covers, doors, and seals are made from 7075-T7351 alclad sheet, 2024-T8511 extrusions, and 7075-T6 alclad sheet. These parts are sealed when attached to the graphite epoxy laminate. If finish system/protection system damage occurs dissimilar metal corrosion may appear.

7. Trailing Edge. See figure 3.

a. The trailing edge is made mostly of aluminum alloy. Both spars are 7050-T73652 aluminum alloy forgings and the ribs are 7050-T411 forgings, 7050-T73652 forgings, or 7075-T6 alclad sheet.

b. Water intrusion and entrapment because of clogged drainage provisions may cause corrosion damage.

c. Damage to the finish system/protection system may cause corrosion if moisture exists.

d. Dissimilar metal contact may also cause corrosion.

8. Trailing Edge Flap Shroud. See figure 4.

a. The trailing edge flap shroud is a honeycomb core assembly and only components and surfaces exposed to the environment are corrosion prone.

b. Damage to finish system/protection system may occur from abrasion, erosion, or tools.

c. The spar is 7075-T7352 aluminum alloy forging, skins are 7075-T6 alclad one side sheet, closure ribs are 7075-T7351 aluminum alloy plate, and shroud seals are 7075-T6 alclad/7075-T6 aluminum alloy sheet.

9. Trailing Edge Flap. See figure 5.



To avoid damaging carbon epoxy spar and skins, use caution during corrosion removal. Corrosion removal can cause severe damage to nonmetallic assemblies. These nonmetallic assemblies do not receive corrosion removal and shall be masked.

a. The trailing edge flap is a bonded honeycomb core/carbon epoxy assembly with a aluminum alloy leading edge. The aft honeycomb core torque box has carbon epoxy skins, ribs, and spar.

b. The leading edge skins and closure ribs are 7075-T6 alclad sheet, and 7075-T7351 aluminum alloy plate. The track closure ribs are 7075-T73652 and 7050-T73651 aluminum alloy. Hinges are 7050-T73652 aluminum alloy forgings.

c. The hinges, shroud track enclosures, leading edge skins, and closure ribs are exposed to the environment.

d. Finish system/protection system damage to terminal strips located on hinges, detail A and B.

e. Working of fasteners, structure, or seals may cause sealant failure allowing water/moisture entry/entrapment.

f. Internal ribs are 7075-T6 alclad sheet, 7075-T7351 aluminum alloy plate, 7050-T73652 and

7075-T7352 aluminum alloy forgings. Stringers and supports are 7075-T6 alclad sheet, 7075-T73651 aluminum alloy plate, and 7075-T73 aluminum alloy extrusion.

10. CORROSION INSPECTION. (WP005 00).

a. Inboard flap:

(1) Exterior surfaces for pitting.

(2) Damage to finish system/protection system.

b. Torque box:

(1) No inspection required, maintain finish system/protection system.

c. Trailing edge:

(1) Clogged drainage provisions.

(2) Finish system/protection system for damage.

(3) Exterior closures for pitting or surface corrosion.

d. Trailing edge flap shroud:

(1) Surfaces for pitting or surface corrosion.

(2) Damage to finish system/protection system.

(3) Shroud compartment for pitting or surface corrosion.

(4) Damage to finish system/protection system.

e. Trailing edge flap:

(1) Clogged drainage provisions.

(2) Leading edge for pitting or surface corrosion.

(3) Damage to finish system/protection system.

(4) Fillet seal missing from periphery of terminal strips.

11. CLEANING. (WP006 00).

12. **STRIPPING.** (WP007 00).

13. **CORROSION REMOVAL.** (WP005 00).

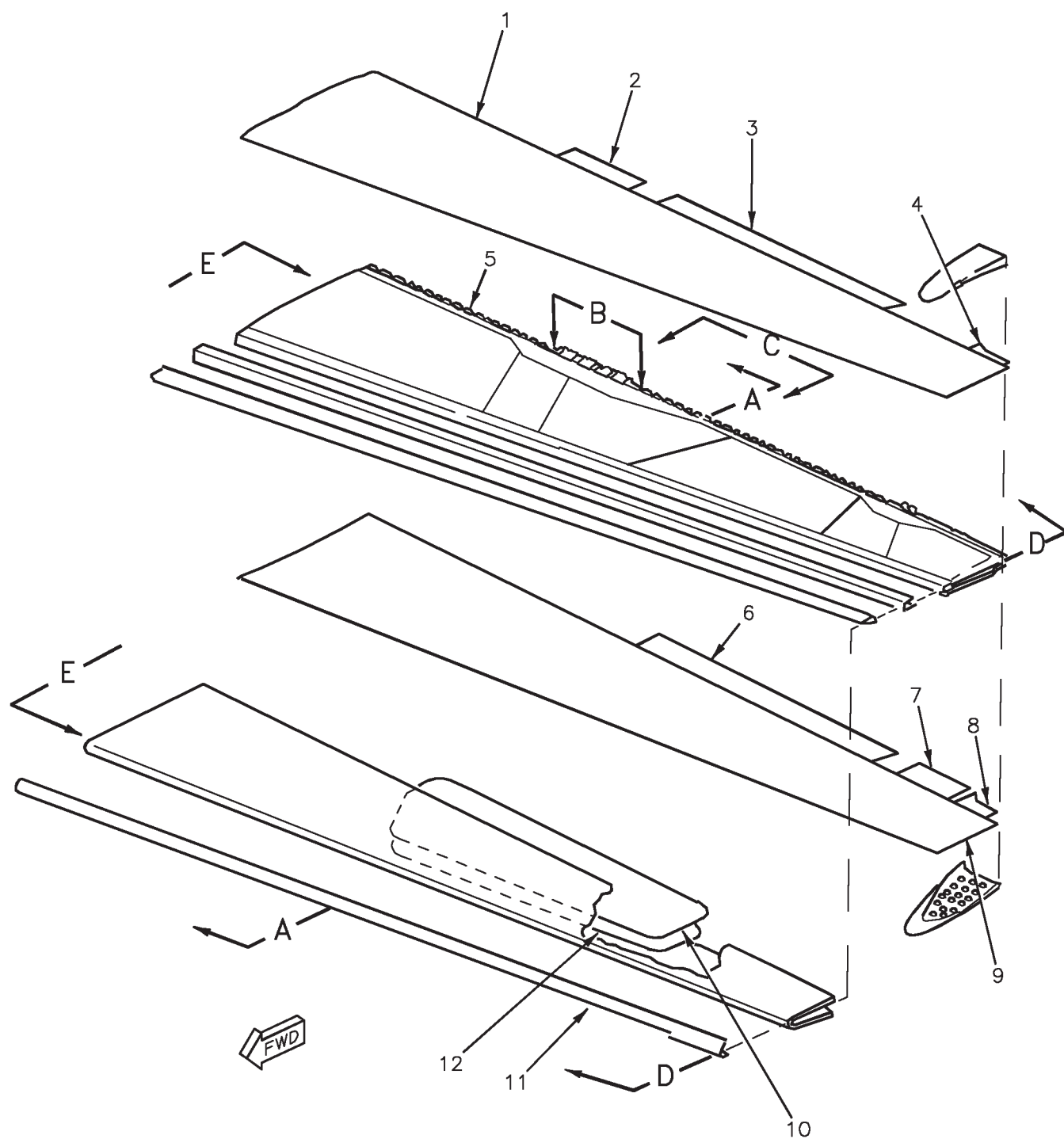
14. **CHEMICAL TREATMENT.** (WP008 00).

15. **FINISH SYSTEM AND MARKINGS.**
(WP0027 00).

16. **CLASSIFICATION OF CRITICAL ITEMS/AREAS.**
(A1-F18AC-SRM-210, WP001 01 or
A1-F18AE-SRM-600, WP001 01).

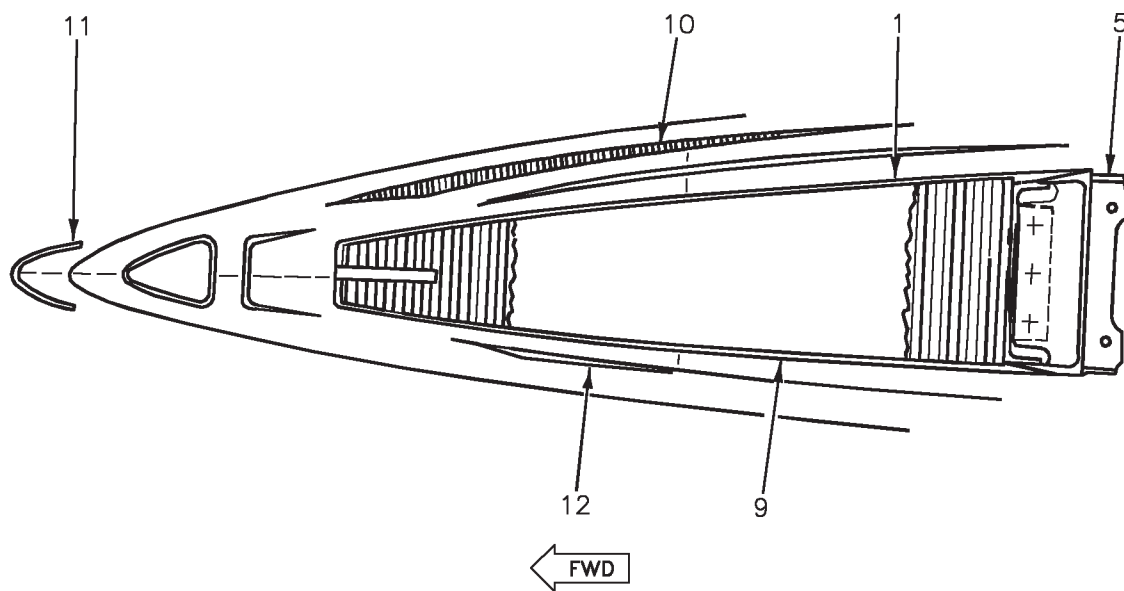
17. **CORROSION DAMAGE EVALUATION AND LIMITS.** (A1-F18AC-SRM-210, WP001 01 or
A1-F18AE-SRM-600, WP001 01).

18. **CORROSION DAMAGE REPAIR.** (WP005 00
and A1-F18AC-SRM-210, WP001 01 or
A1-F18AE-SRM-600, WP001 01).

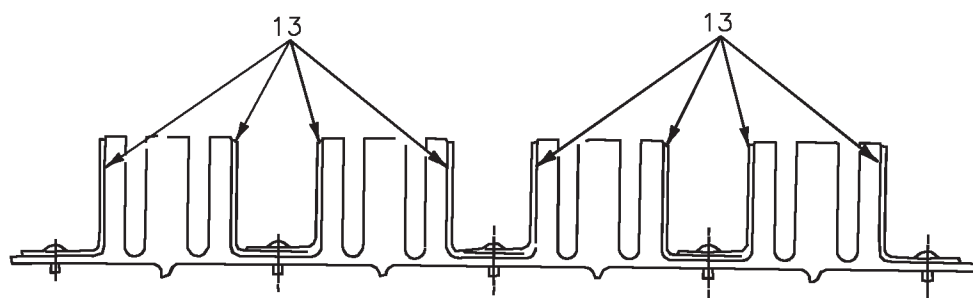


161353 THRU 161519

Figure 1. Inboard Flap (Sheet 1)



A
VIEW LOOKING INBOARD



B
VIEW LOOKING DOWN

Figure 1. Inboard Flap (Sheet 2)

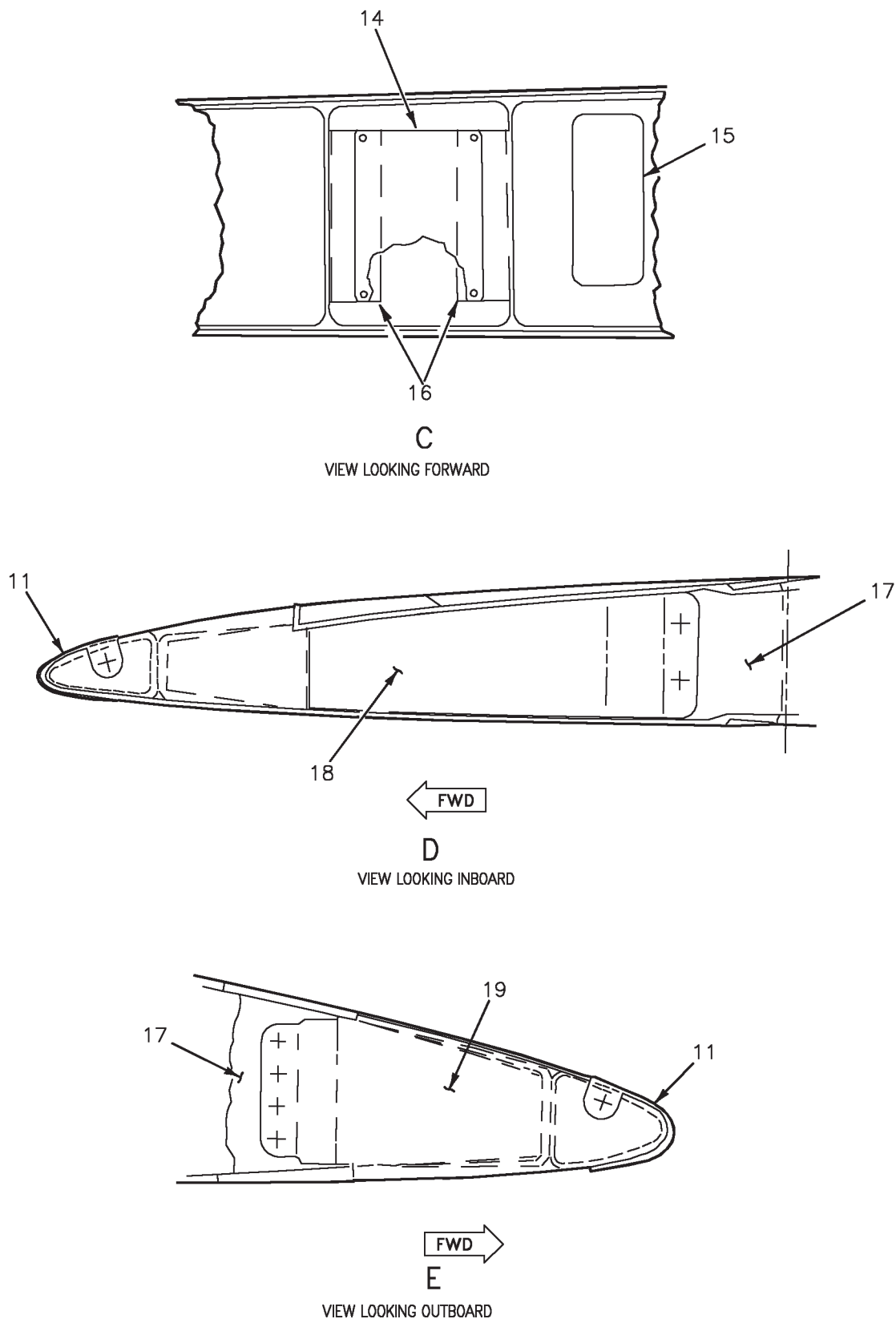
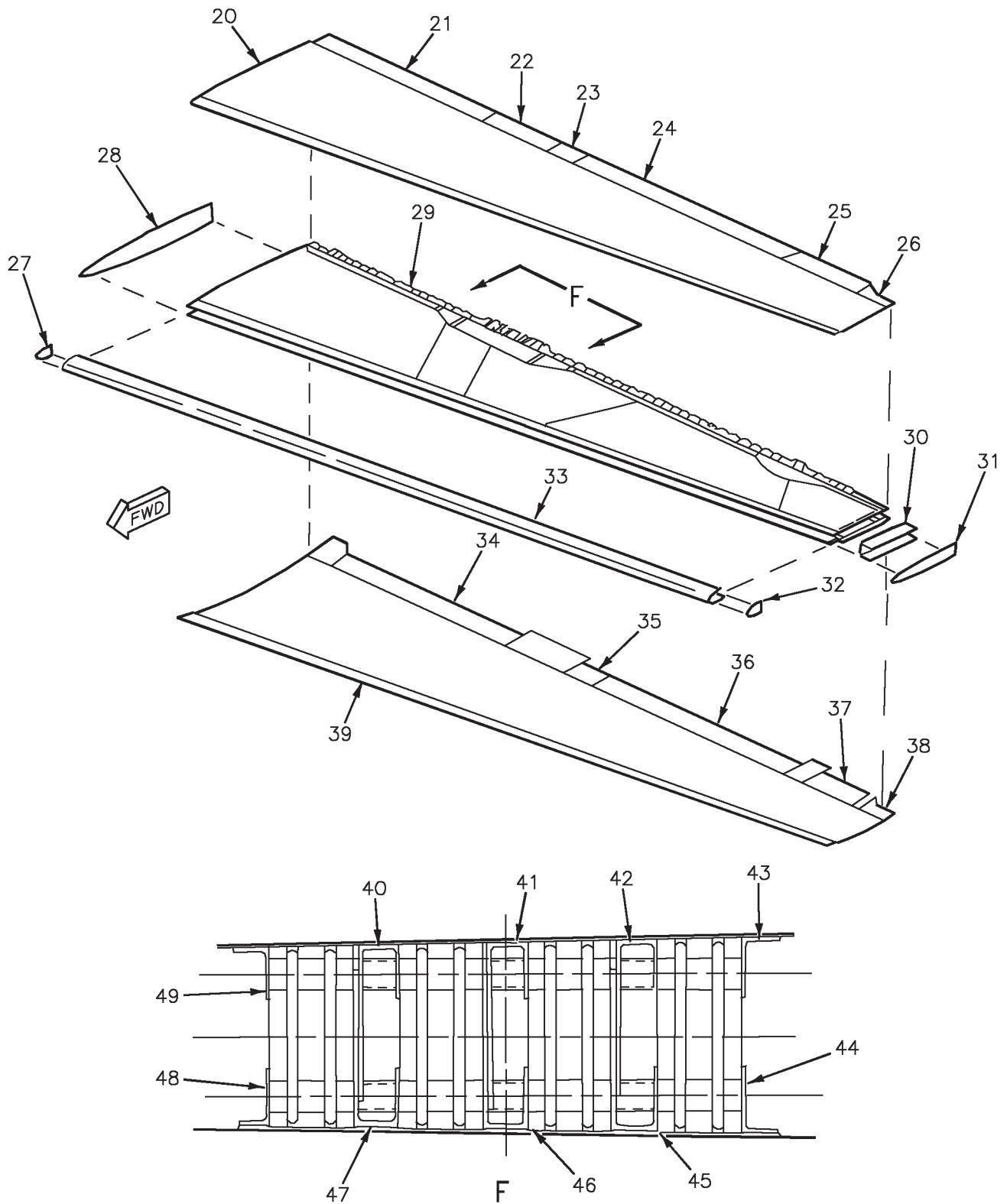


Figure 1. Inboard Flap (Sheet 3)



VIEW LOOKING FORWARD

161520 AND UP

Figure 1. Inboard Flap (Sheet 4)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|----------------|
| 1 | Skin | 7075-T76 Alclad, Plate | Surface |
| 2 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 3 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 4 | Support | 7075-T76 Alclad, Sheet | Surface |
| 5 | Spar | 7050-T736 Al Aly, Machining | Pitting |
| 6 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 7 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 8 | Support | 7075-T76 Alclad, Sheet | Surface |
| 9 | Skin | 7075-T76 Alclad, Plate | Surface |
| 10 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 11 | Cap | 6061-T6 Al Aly, Sheet | Pitting |
| 12 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 13 | Spacer | 7075-T76 Alclad, Sheet | Surface |
| 14 | Plate | 1100-H14 Al Aly, Foil | Pitting |
| 15 | Plate | 1100-H14 Al Aly, Foil | Pitting |
| 16 | Bracket | 7075-T73 Al Aly, Plate | Pitting |
| 17 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 18 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 19 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 20 | Skin | 7075-T6 Alclad, Plate | Surface |
| 21 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 22 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 23 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 24 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 25 | Seal | 7075-T6 Alclad, Sheet | Surface |

Figure 1. Inboard Flap (Sheet 5)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|----------------|
| 26 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 27 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 28 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 29 | Spar | 7050-T736 Al Aly, Machining | Pitting |
| 30 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 31 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 32 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 33 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 34 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 35 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 36 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 37 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 38 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 39 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 40 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 41 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 42 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 43 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 44 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 45 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 46 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 47 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 48 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 49 | Support | 7075-T76 Al Aly, Extrusion | Pitting |

Figure 1. Inboard Flap (Sheet 6)

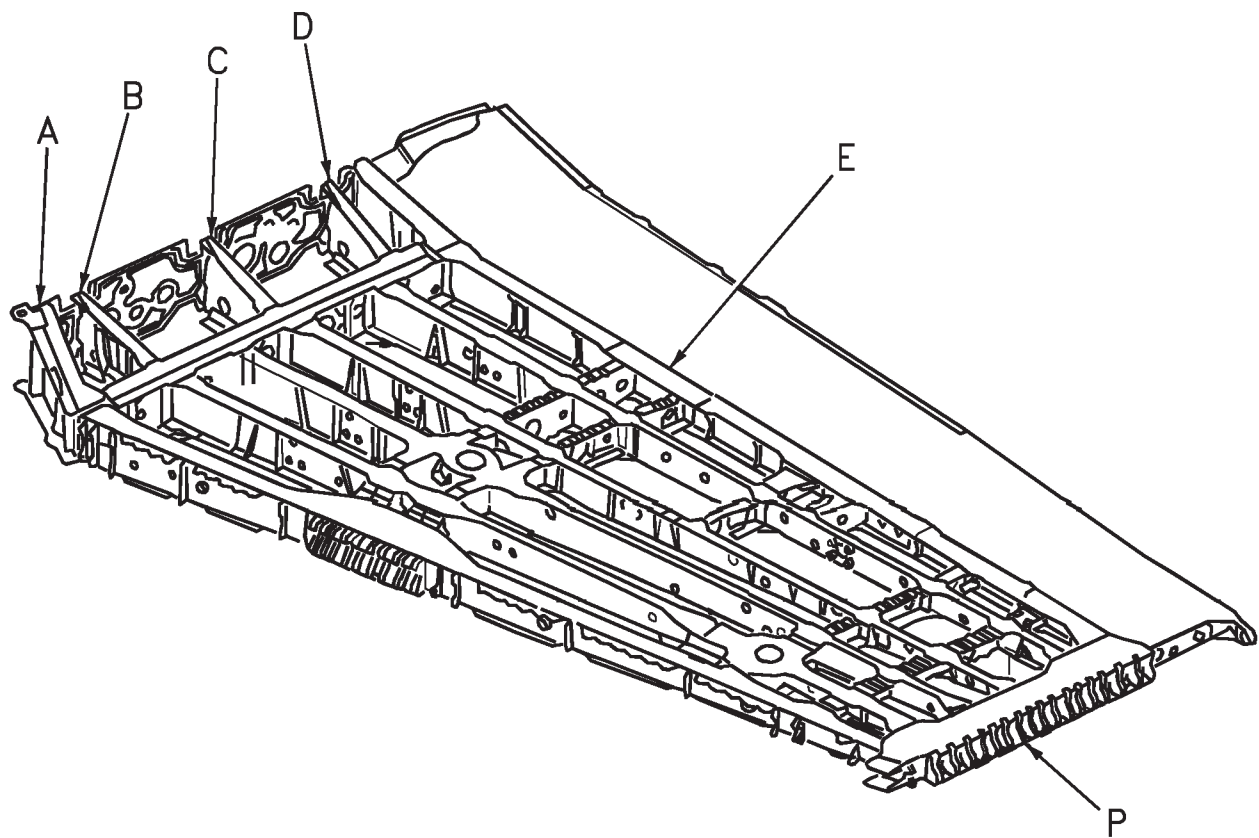


Figure 2. Torque Box (Sheet 1)

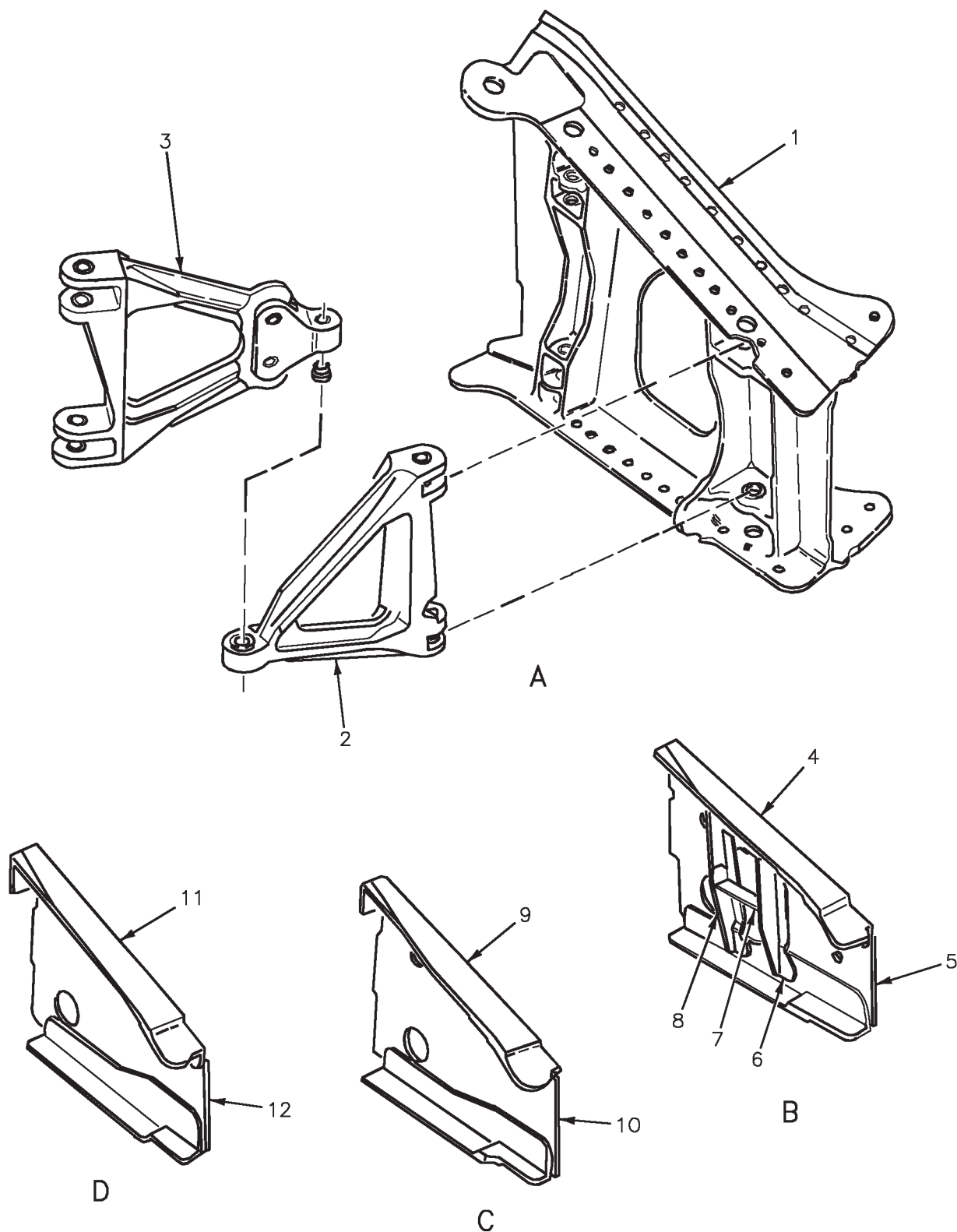


Figure 2. Torque Box (Sheet 2)

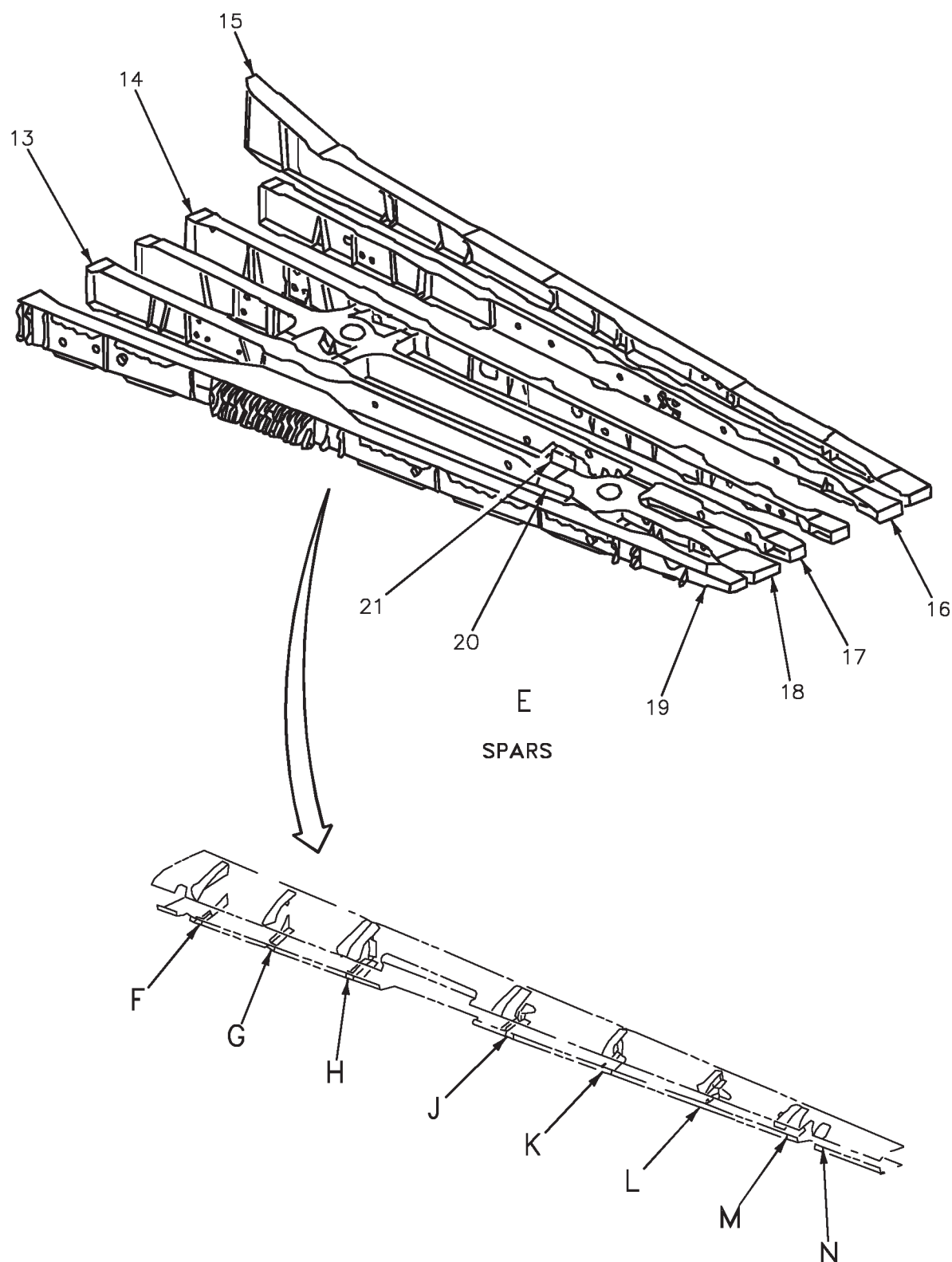


Figure 2. Torque Box (Sheet 3)

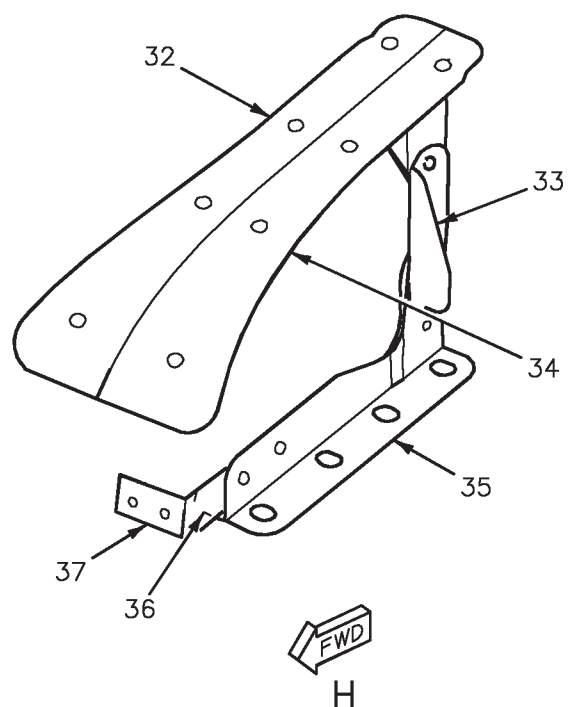
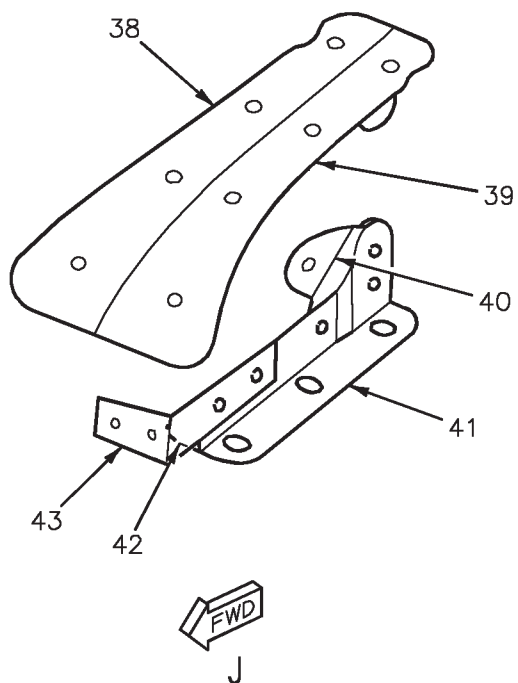
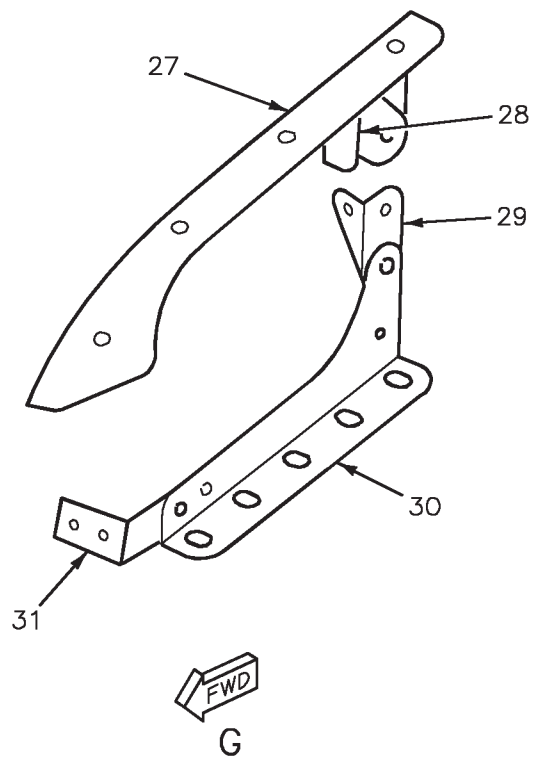
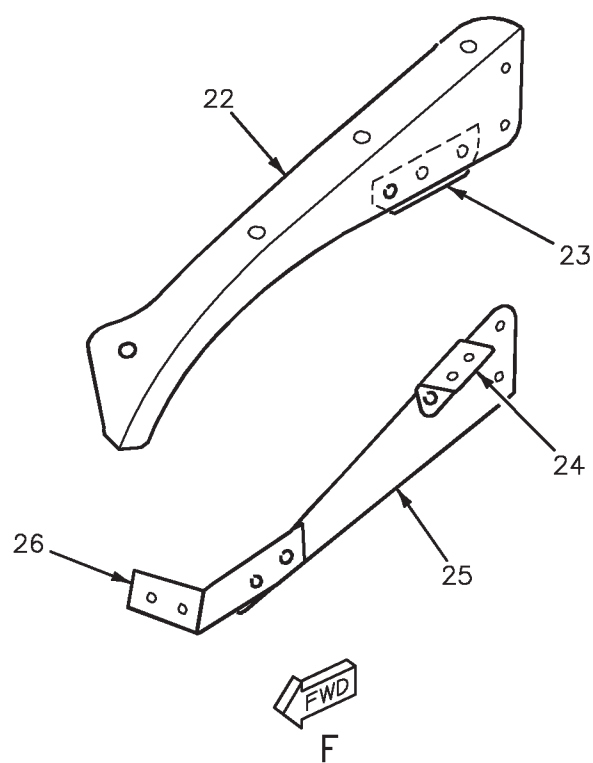


Figure 2. Torque Box (Sheet 4)

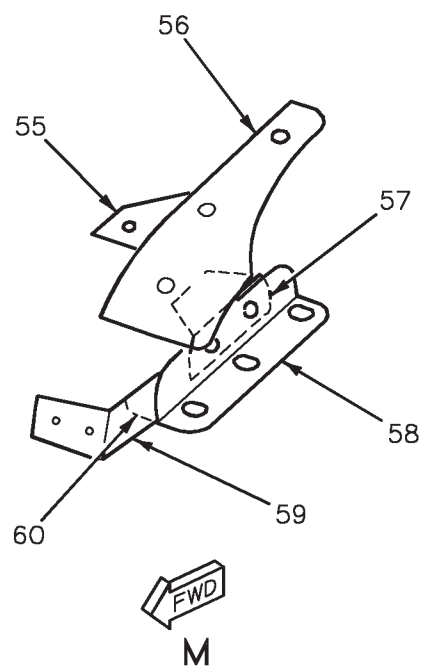
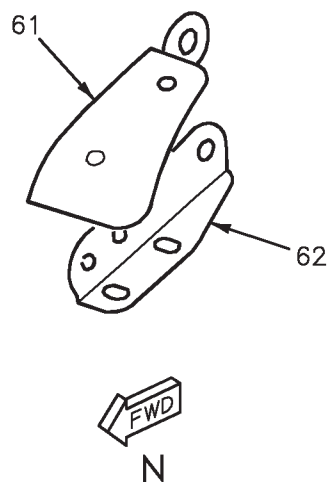
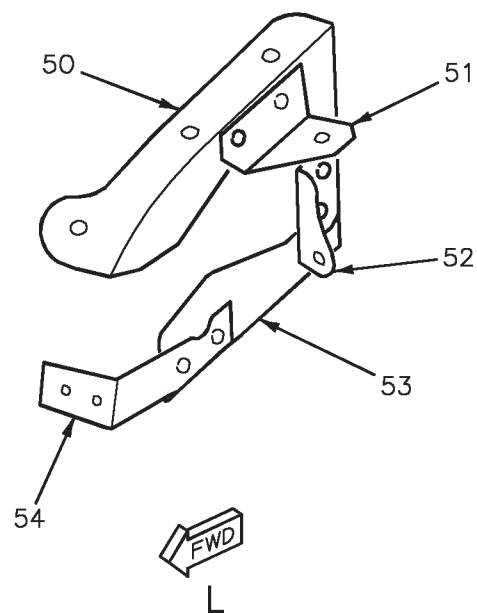
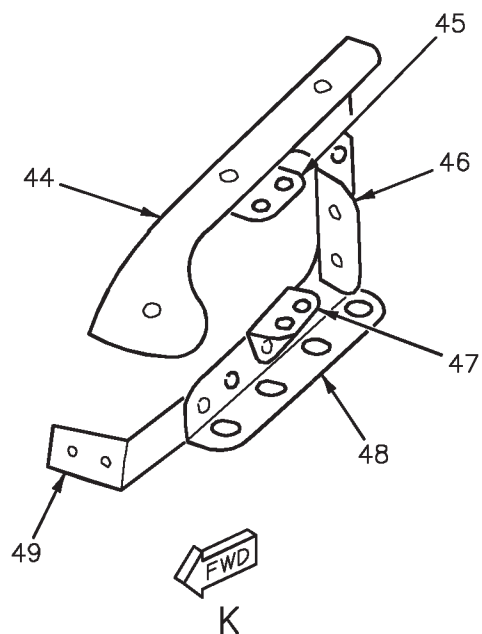


Figure 2. Torque Box (Sheet 5)

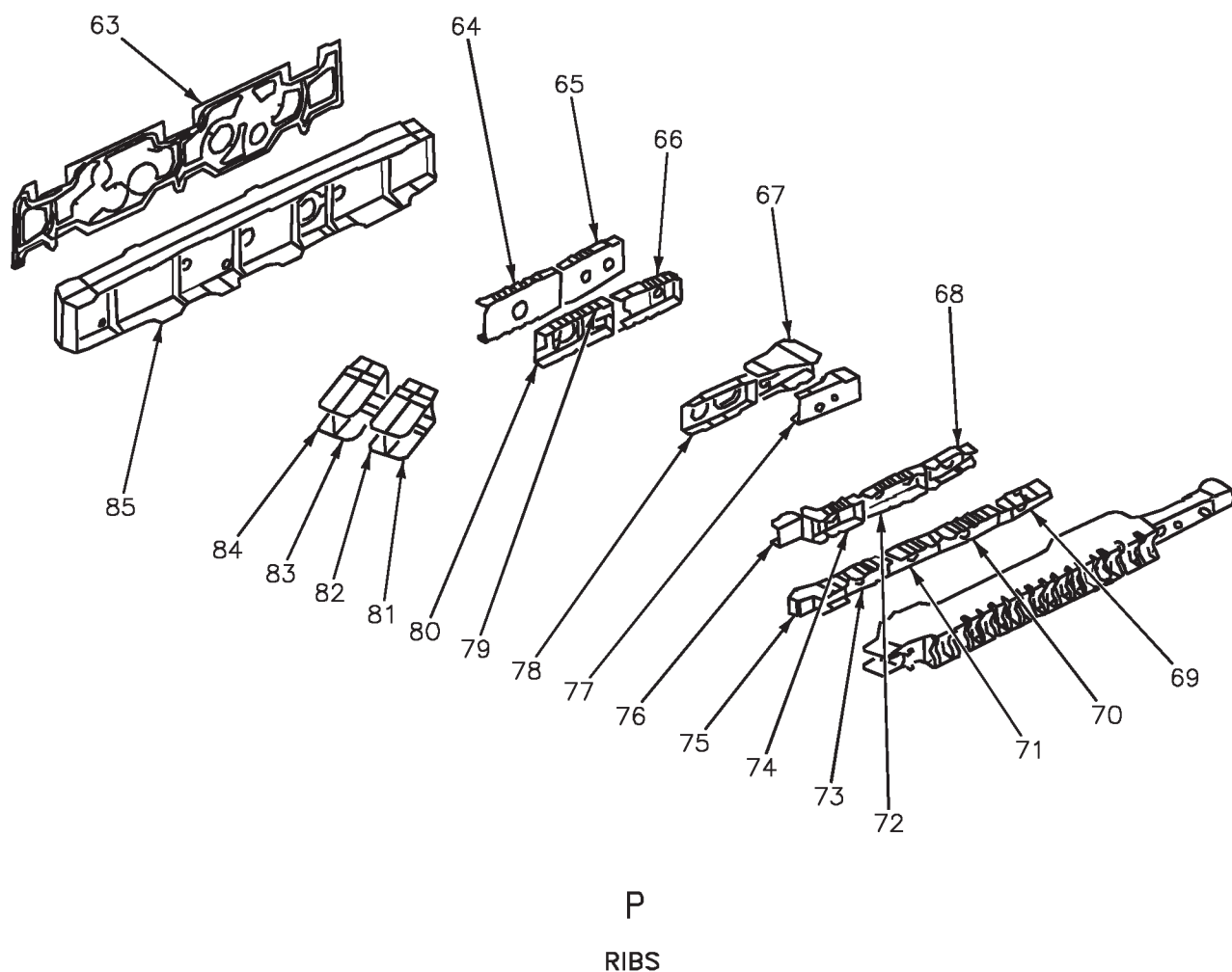
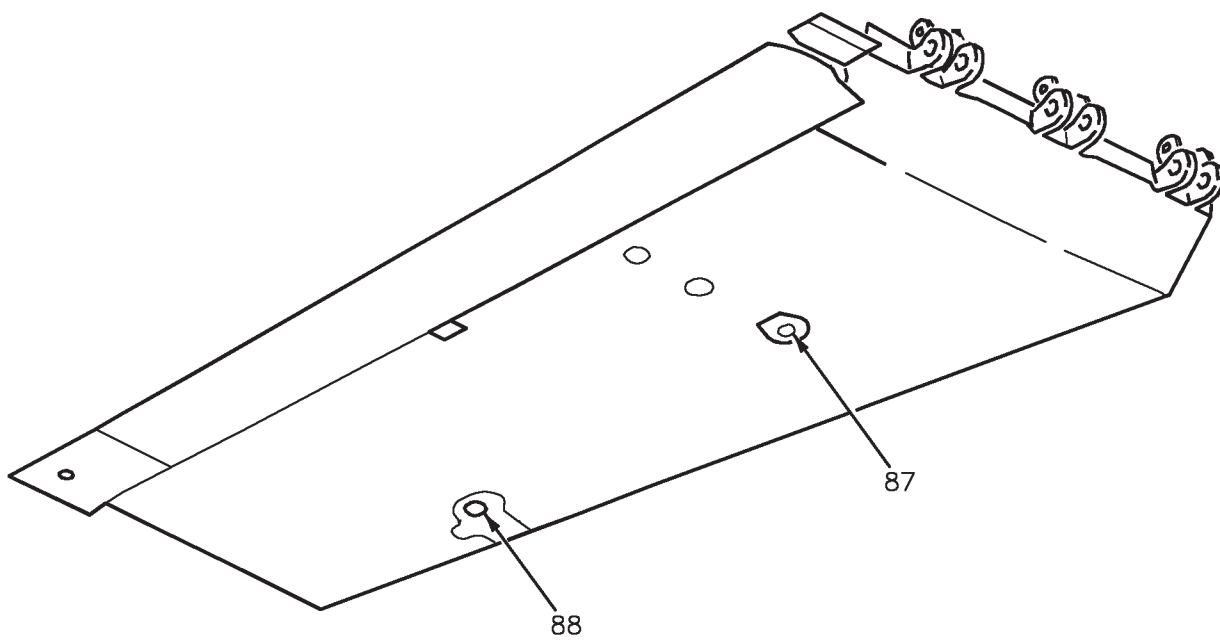
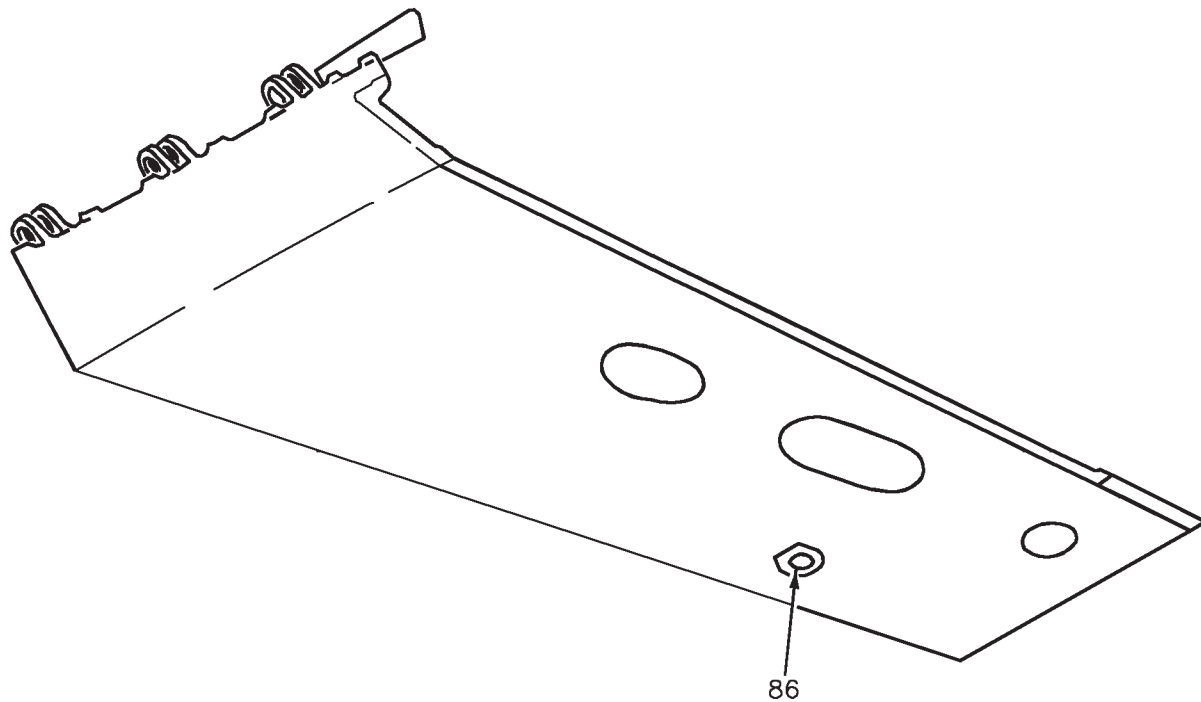


Figure 2. Torque Box (Sheet 6)



DOORS/COVERS

Figure 2. Torque Box (Sheet 7)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|-----------------|
| 1 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 2 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 3 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 4 | Cap | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 5 | Web | 7050-T411 Al Aly, Forging | Surface/Pitting |
| 6 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 7 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 8 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 9 | Cap | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 10 | Web | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 11 | Cap | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 12 | Web | 7050-T411 Al Aly, Forging | Surface/Pitting |
| 13 | Spar | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 14 | Spar | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 15 | Spar | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 16 | Spar | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 17 | Spar | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 18 | Support | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 19 | Spar | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 20 | Fitting | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 21 | Fitting | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 22 | Former | 7075-T6 Alclad, Sheet | Surface |
| 23 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 24 | Bracket | 2024-T81 Alclad, Sheet | Surface |
| 25 | Former | 7070-T6 Alclad, Sheet | Surface |

Figure 2. Torque Box (Sheet 8)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------|----------------|
| 26 | Clip | 7075-T6 Alclad, Sheet | Surface |
| 27 | Former | 7070-T6 Alclad, Sheet | Surface |
| 28 | Bracket | 7075-T6 Alclad Sheet | Surface |
| 29 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 30 | Former | 7075-T6 Alclad, Sheet | Surface |
| 31 | Clip | 7075-T6 Alclad, Sheet | Surface |
| 32 | Former | 7075-T6 Alclad, Sheet | Surface |
| 33 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 34 | Former | 7075-T6 Alclad, Sheet | Surface |
| 35 | Former | 7075-T6 Alclad, Sheet | Surface |
| 36 | Former | 7075-T6 Alclad, Sheet | Surface |
| 37 | Clip | 7075-T6 Alclad, Sheet | Surface |
| 38 | Former | 7075-T6 Alclad, Sheet | Surface |
| 39 | Former | 7075-T6 Alclad, Sheet | Surface |
| 40 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 41 | Former | 7075-T6 Alclad, Sheet | Surface |
| 42 | Former | 7075-T6 Alclad, Sheet | Surface |
| 43 | Clip | 7075-T6 Alclad, Sheet | Surface |
| 44 | Former | 7075-T6 Alclad, Sheet | Surface |
| 45 | Bracket | 2024-T81 Alclad, Sheet | Surface |
| 46 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 47 | Bracket | 2024-T81 Alclad, Sheet | Surface |
| 48 | Former | 7075-T6 Alclad, Sheet | Surface |
| 49 | Clip | 7075-T6 Alclad, Sheet | Surface |
| 50 | Former | 7075-T6 Alclad, Sheet | Surface |

Figure 2. Torque Box (Sheet 9)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|-----------------|
| 51 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 52 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 53 | Former | 7075-T6 Alclad, Sheet | Surface |
| 54 | Clip | 7075-T6 Alclad, Sheet | Surface |
| 55 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 56 | Former | 7075-T6 Alclad, Sheet | Surface |
| 57 | Bracket | 7075-T6 Alclad, Sheet | Surface |
| 58 | Former | 7075-T6 Alclad, Sheet | Surface |
| 59 | Clip | 7075-T6 Alclad, Sheet | Surface |
| 60 | Former | 7075-T6 Alclad, Sheet | Surface |
| 61 | Former | 7075-T6 Alclad, Sheet | Surface |
| 62 | Former | 7075-T6 Alclad, Sheet | Surface |
| 63 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 64 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 65 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 66 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 67 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 68 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 69 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 70 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 71 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 72 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 73 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 74 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 75 | Rib | 7075-T73652 Al Aly, Forging | Surface/Pitting |

Figure 2. Torque Box (Sheet 10)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|-----------------|
| 76 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 77 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 78 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 79 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 80 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 81 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 82 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 83 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 84 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 85 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 86 | Skin (Door 19) | 7075-T6 Alclad, Sheet | Surface |
| 87 | Cover (Door 20) | 7075-T7351 Alclad, Sheet | Surface |
| 88 | Cover (Door 21) | 7075-T7351 Alclad, Sheet | Surface |

Figure 2. Torque Box (Sheet 11)

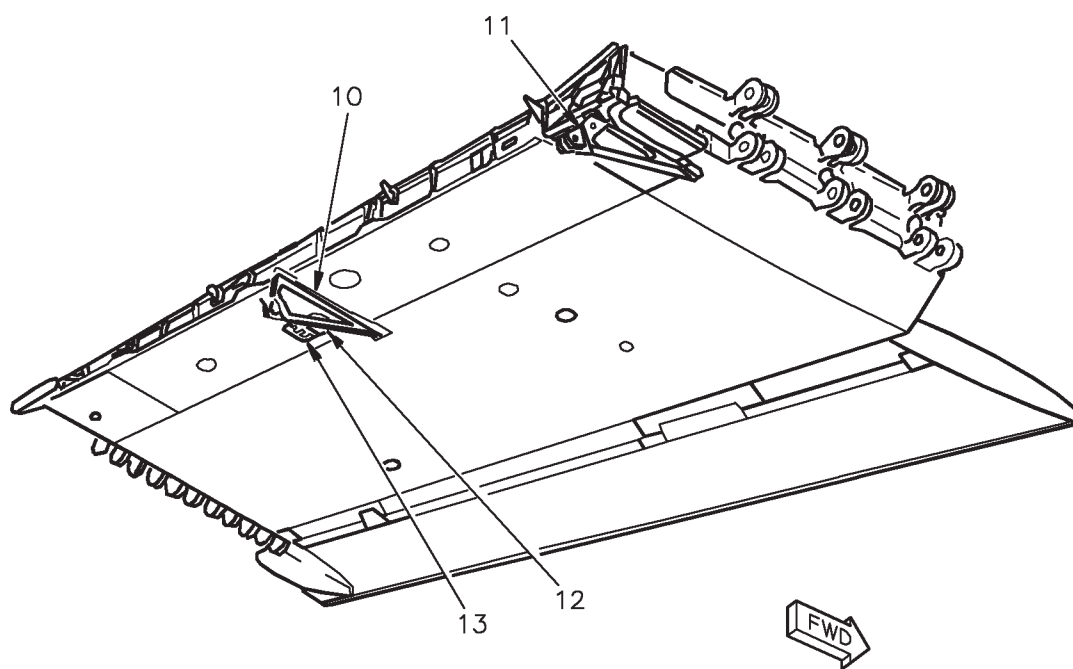
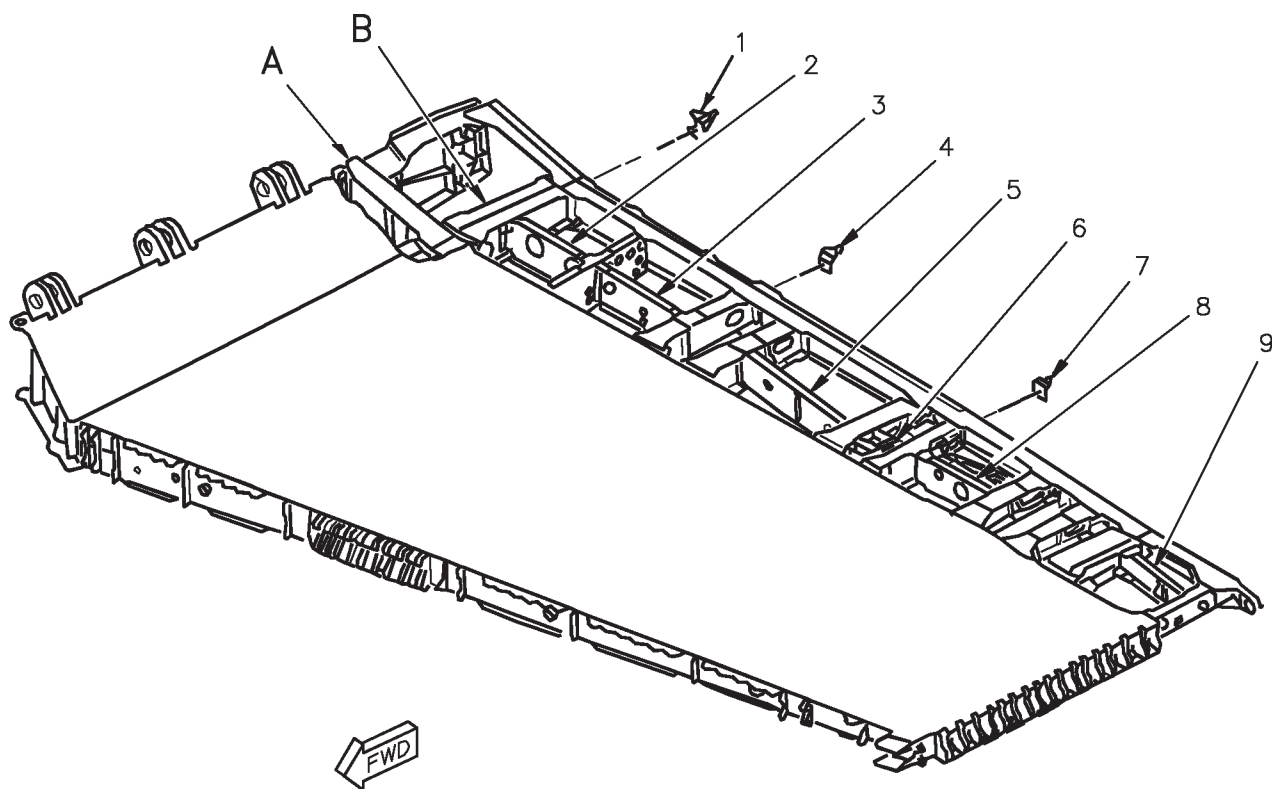


Figure 3. Trailing Edge (Sheet 1)

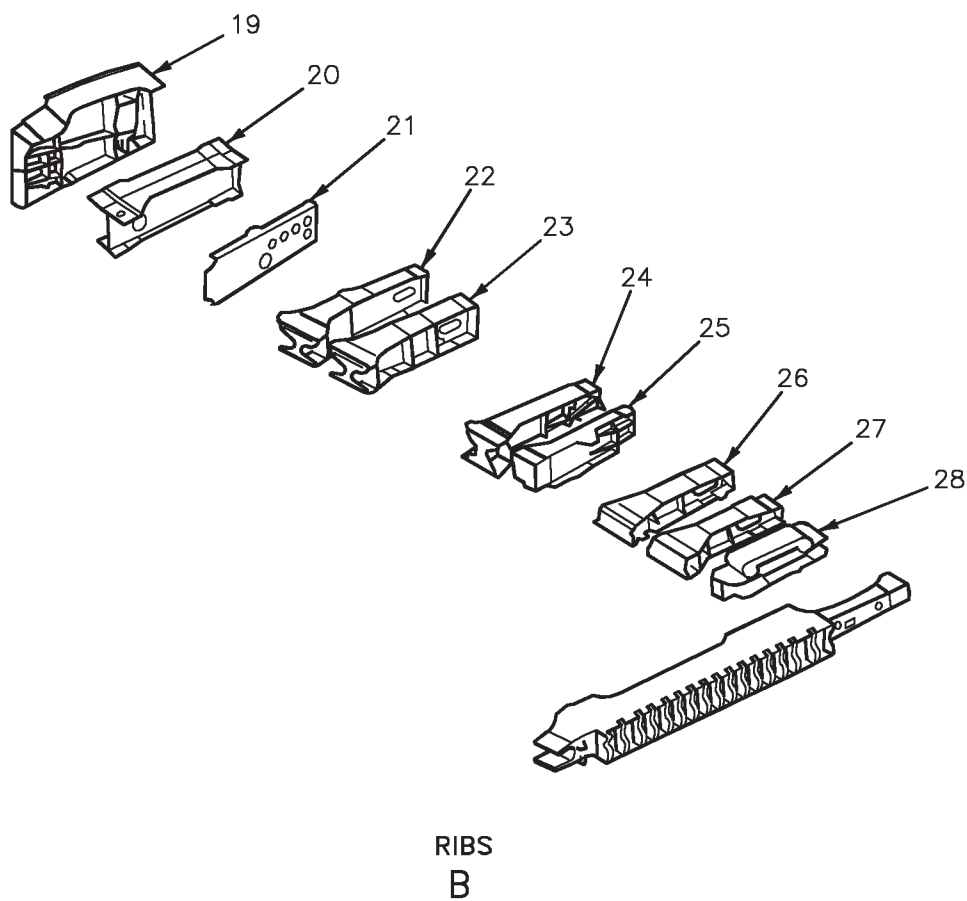
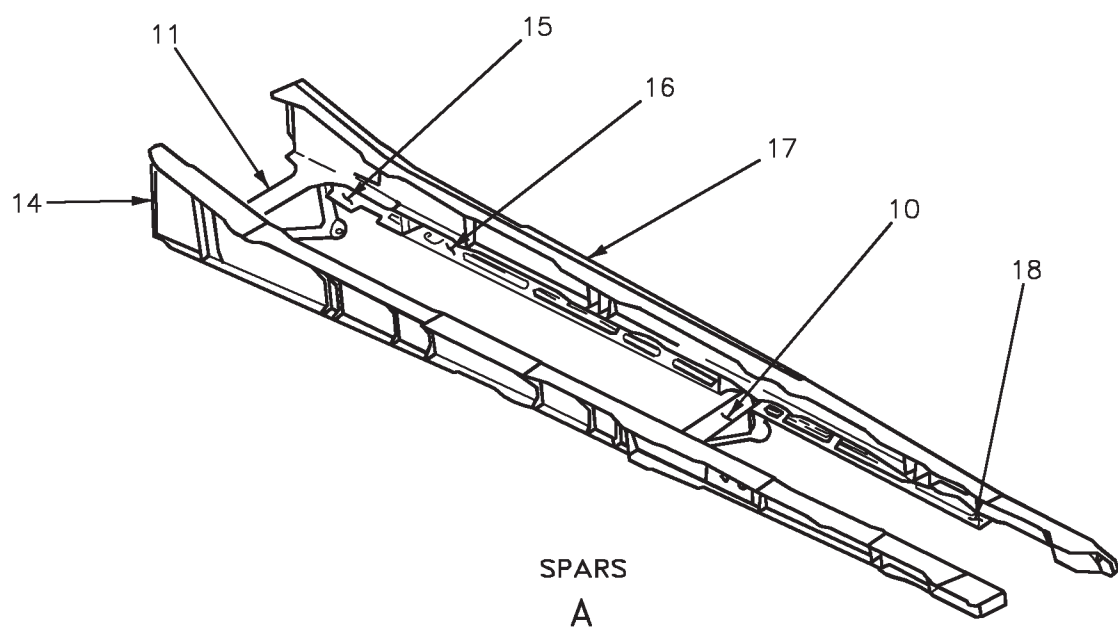


Figure 3. Trailing Edge (Sheet 2)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------------|-----------------|
| 1 | Hinge Half | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 2 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 3 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 4 | Hinge Half | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 5 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 6 | Adapter | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 7 | Hinge Half | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 8 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 9 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 10 | Hinge Half | 7050-T736 Al Aly, Forging | Surface/Pitting |
| 11 | Hinge Half | 7050-T736 Al Aly, Forging | Surface/Pitting |
| 12 | Hinge Half | 2024-T8511 Al Aly, Extrusion | Pitting |
| 13 | Hinge Half | 2024-T8511 Al Aly, Extrusion | Pitting |
| 14 | Spar | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 15 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 16 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 17 | Spar | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 18 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 19 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 20 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 21 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 22 | Rib | 7050-T411 Al Aly, Forging | Pitting |
| 23 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 24 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 25 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |

Figure 3. Trailing Edge (Sheet 3)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|-----------------|
| 26 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 27 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 28 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |

Figure 3. Trailing Edge (Sheet 4)

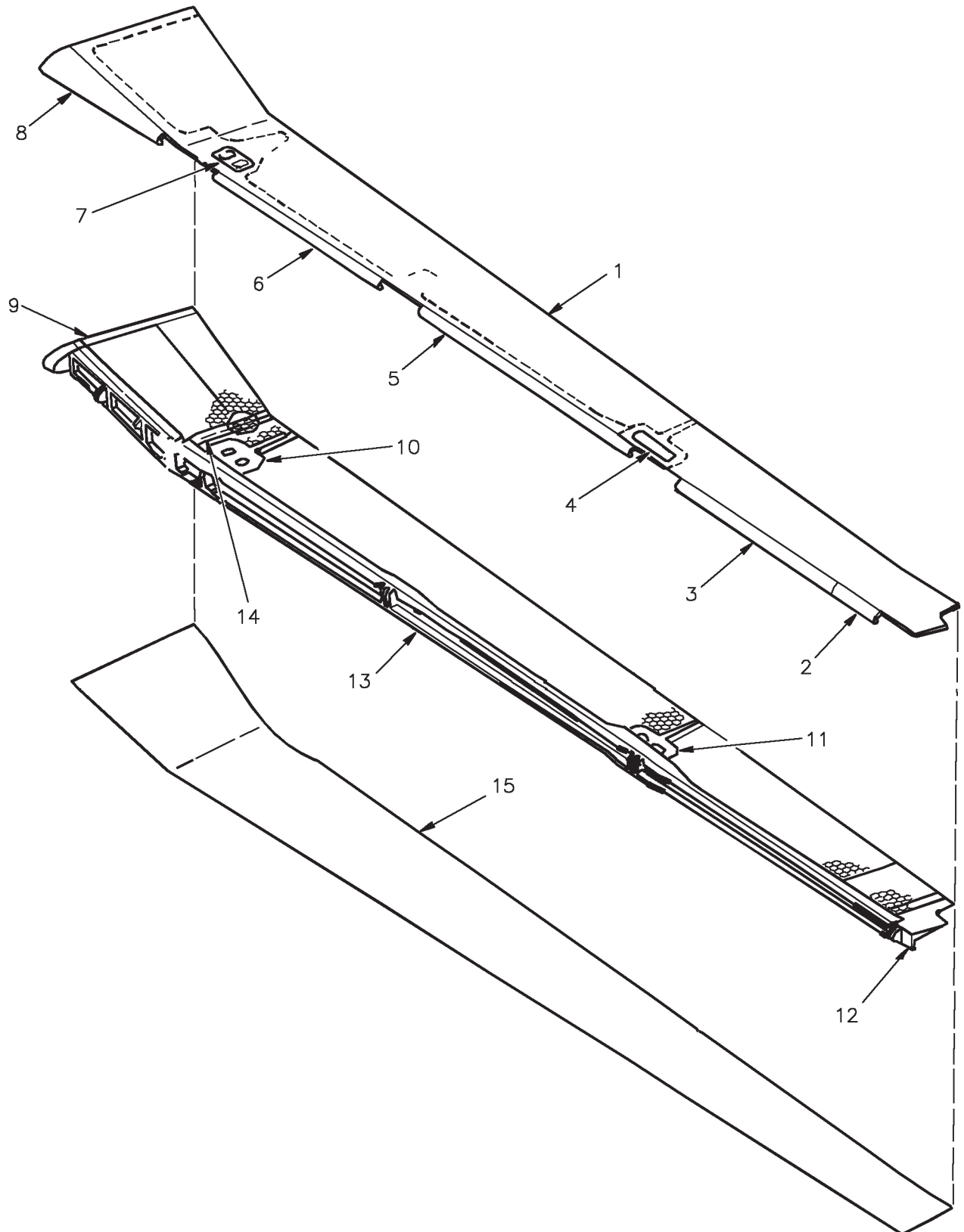


Figure 4. Trailing Edge Flap Shroud (Sheet 1)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------------|----------------|
| 1 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 2 | Seal | 7075-T6 Al Aly, Sheet | Pitting |
| 3 | Seal | 7075-T6 Alclad One Side, Sheet | Pitting |
| 4 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 5 | Seal | 7075-T6 Alclad One Side, Sheet | Pitting |
| 6 | Seal | 7075-T6 Alclad One Side, Sheet | Pitting |
| 7 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 8 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 9 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 10 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 11 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 12 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 13 | Spar | 7075-T7352 Al Aly, Forging | Pitting |
| 14 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 15 | Skin | 7075-T6 Alclad One Side, Sheet | Surface |

Figure 4. Trailing Edge Flap Shroud (Sheet 2)

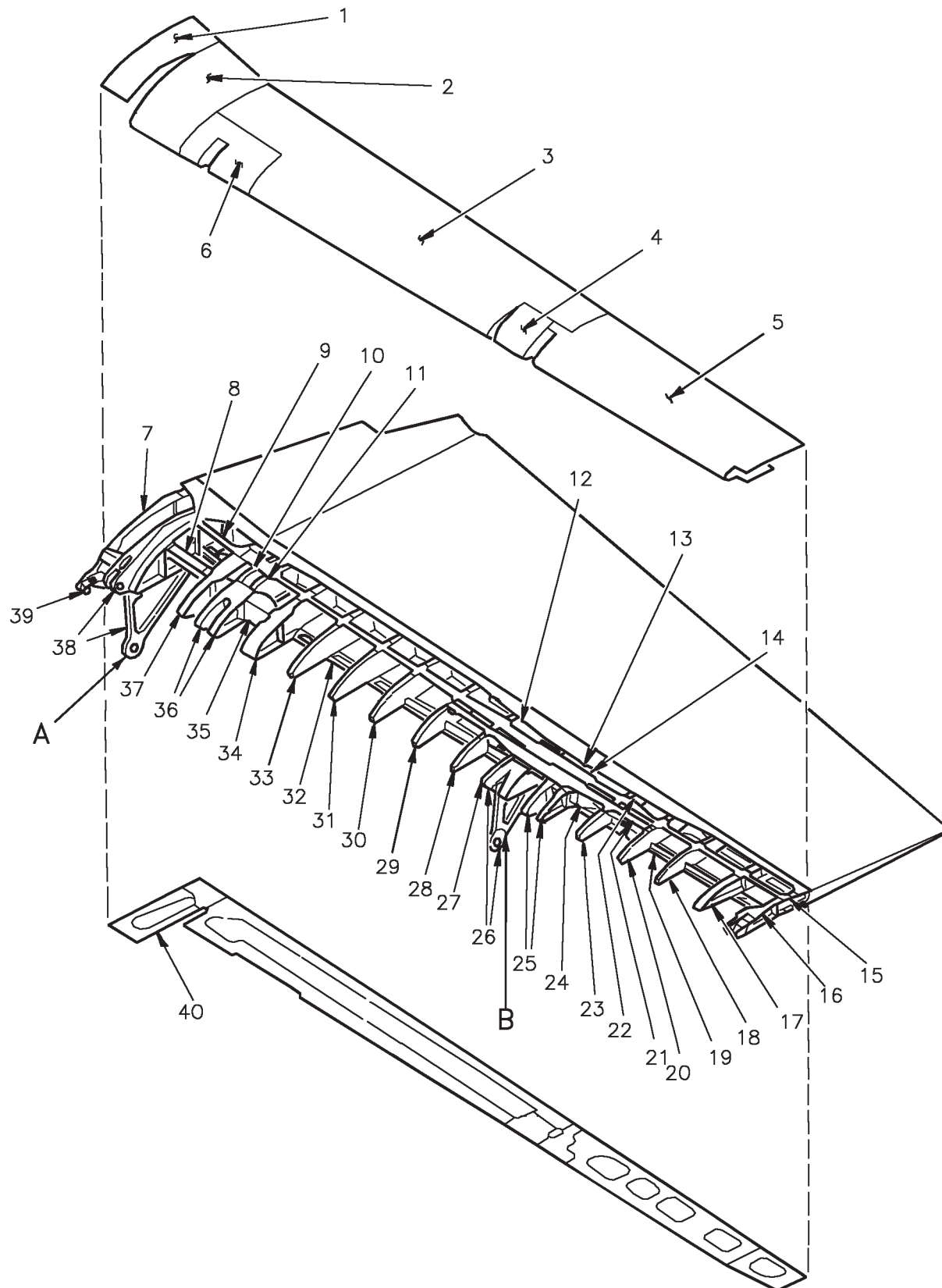


Figure 5. Trailing Edge Flap (Sheet 1)

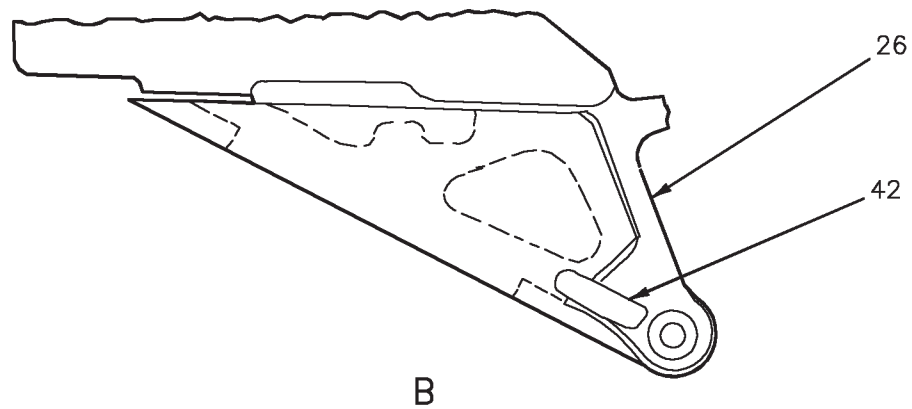
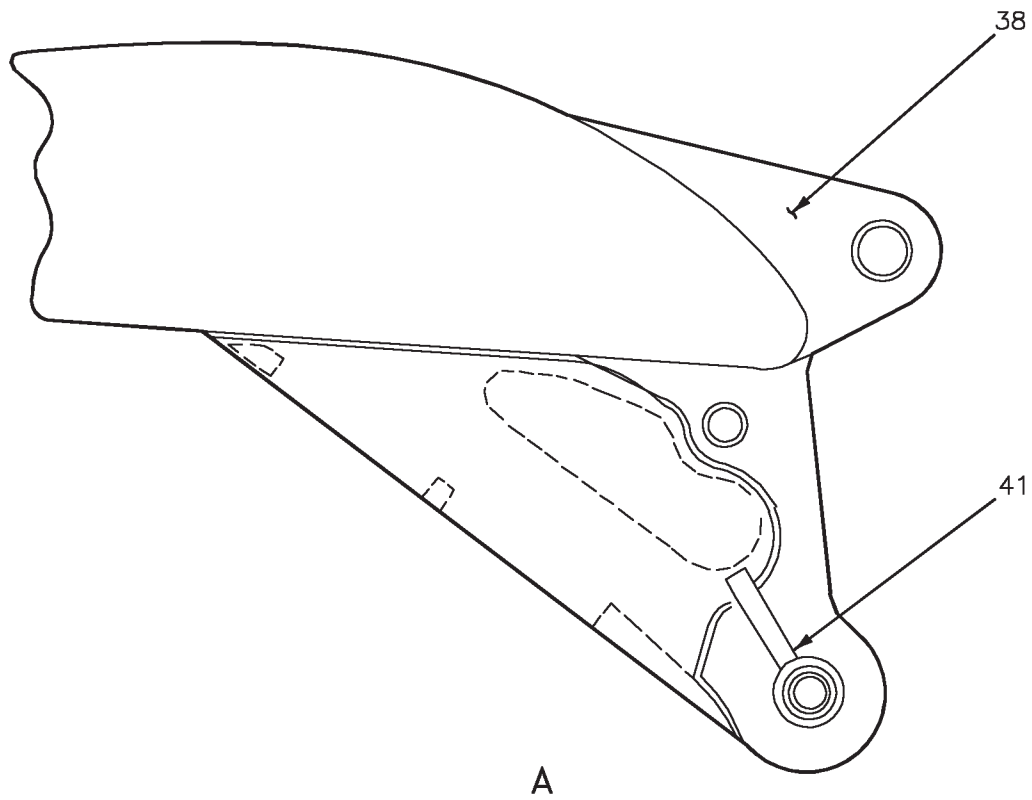


Figure 5. Trailing Edge Flap (Sheet 2)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|-----------------|
| 1 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 2 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 3 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 4 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 5 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 6 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 7 | Rib | 7075-T7351 Al Aly, Plate | Surface/Pitting |
| 8 | Support | 7075-T6 Alclad, Sheet | Surface |
| 9 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 10 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 11 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 12 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 13 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 14 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 15 | Stringer | 7075-T73 Al Aly, Extrusion | Pitting |
| 16 | Rib | 7075-T7351 Al Aly, Plate | Surface |
| 17 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 18 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 19 | Stringer | 7075-T76 Al Aly, Extrusion | Surface |
| 20 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 21 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 22 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 23 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 24 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 25 | Support | 7075-T73651 Al Aly, Plate | Pitting |

Figure 5. Trailing Edge Flap (Sheet 3)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 26 | Rib | 7050-T73652 Al Aly, Forging | Pitting |
| 27 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 28 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 29 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 30 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 31 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 32 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 33 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 34 | Rib | 7075-T7351 Al Aly, Plate | Surface |
| 35 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 36 | Support | 7050-T73651 Al Aly, Plate | Pitting |
| 37 | Rib | 7075-T7352 Al Aly, Forging | Surface |
| 38 | Rib | 7050-T73652 Al Aly, Forging | Surface |
| 39 | Support | 7175-T736 Al Aly, Plate | Surface |
| 40 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 41 | Terminal Strip | 301 CRES | Pitting |
| 42 | Terminal Strip | 301 CRES | Pitting |

Figure 5. Trailing Edge Flap (Sheet 4)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

OUTER WING CORROSION PRONE AREAS

Reference Material

| | |
|---|------------------|
| Structure Repair, Wing..... | A1-F18AC-SRM-210 |
| Wing Structure Group Index | WP001 01 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning..... | WP006 00 |
| Stripping..... | WP007 00 |
| Chemical Treatment..... | WP008 00 |
| Inner and Outer Wing Finish System and Markings | WP027 00 |
| Structure Repair, Wing..... | A1-F18AE-SRM-600 |
| Wing Structure Group Index | WP001 01 |

Alphabetical Index

| Subject | Page No. |
|--|----------|
| Description | 2 |
| Chemical Treatment | 4 |
| Classification of Critical Items/Areas..... | 4 |
| Cleaning..... | 4 |
| Corrosion Damage Evaluation and Limits | 4 |
| Corrosion Damage Repair | 4 |
| Corrosion Inspection..... | 3 |
| Corrosion Prone Areas..... | 2 |
| Corrosion Removal..... | 4 |
| Finish System and Markings..... | 4 |
| Stripping..... | 4 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The outer wing is made up of the torque box, trailing edge, aileron, aileron shroud, outboard flap, outboard flap seals, and outboard flap attaching parts. Materials used are graphite epoxy composite and aluminum alloys. Finish system is primer and polyurethane coatings.

3. CORROSION PRONE AREAS.

- a. Dissimilar metal contact.
- b. Water intrusion/entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Finish system/protection system damage.

4. Outboard Flap. See figure 1.

- a. The main spar is 7175-T73652 aluminum alloy forging.
- b. Remaining structure and skins are 7075-T76, 7075-T6, 6061-T6 alclad, aluminum alloy sheet, and 7075-T7651 alclad plate.
- c. Damage to the finish system/protection system may be caused by tools, hoses, workstands, or service wear.

5. Outboard Flap Seals. See figure 2.

- a. The upper and lower outboard flap seals are all hard anodized for longer wear. They are 7075-T76 and 7075-T76511 alclad, aluminum alloy sheet. Hard anodized aluminum alloy allows pitting corrosion but not surface corrosion. The mating surfaces of the flap seals are coated with teflon filled anti-chafe coating to reduce service wear.

6. Outboard Flap Attachment Parts And Nearby Structure. See figure 3.

- a. The inboard hinge half is 7050-T73652 aluminum alloy forging and outboard hinge half is

7050-T73651 aluminum alloy sheet. The missile rib closures are 7070-T73652 aluminum alloy forging and 7050-T6 alclad sheet. The missile support rib is 7050-T73652 aluminum alloy forging and front spar is 7175-T73652 aluminum alloy forging.

- b. All parts, except the missile rib closure, are IVD coated to minimize fatigue effects, but may surface corrode or pit.

- c. The outer wing front spar, forward/outer surface is exposed to exterior environment and may corrode.

7. Torque Box. See figure 4.

- a. The inboard sides of the front and aft spars and missile support rib are prone to pitting corrosion if a water leak develops allowing water intrusion/entrapment.

- b. Spars are 7050-T73651 aluminum alloy plate and 7175-T73652 aluminum alloy forging. Ribs are 7075-T7351, 7050-T73651 aluminum alloy plate, 7075-T73651 aluminum alloy forging, and 7050-T73651 aluminum alloy sheet. Supports are 7075-T73511 aluminum alloy extrusion, 7075-T7351 aluminum alloy plate, and 7075-T6 alclad sheet.

8. Trailing Edge. See figure 5.

- a. In service working and chafing of form in place seals may cause water intrusion.
- b. Drain holes may get clogged with dirt and debris.
- c. Dissimilar metal corrosion may occur where graphite epoxy meets the trailing edge if wetted by salt water.
- d. The two spars are 7050-T73651 aluminum alloy plate.
- e. Ribs are 7075-T73651 aluminum alloy forging, 7050-T73651 aluminum alloy plate, and 7075-T6 alclad sheet.

f. Hinges are 7075-T7351 aluminum alloy plate, 7075-T73511 aluminum alloy extrusion, and 7050-T73652, 7075-T7354 aluminum alloy forging.

9. **Aileron Shroud.** See figure 6.

a. Shroud frame, hinge, and drive arms are 7075-T7351 aluminum alloy sheet. Shroud skin, wiper, and seals are 7075-T6 alclad sheet.

b. Finish system/protection system with service will wear and tool damage will occur.

10. **Aileron.** See figure 7.

a. Skins are 7075-T6 alclad sheet.

b. Ribs are 7075-T6 alclad sheet, 7075-T7351 aluminum alloy plate, and 7050-T73652 aluminum alloy forging.

c. Hinges are 7050-T73652 aluminum alloy forgings.

d. Finish system/protection system damage to bonding springs located on hinges, detail A and B.

e. Plates are 7075-T6 alclad sheet and 7075-T76 aluminum alloy sheet.

f. Spar and intercostal are 7075-T6 alclad sheet.

g. The aileron is exposed to environmental conditions:

(1) Skins, closure ribs, hinges, and the parts forming the shroud track closures are exposed to the external environment.

(2) Mold line skins, leading edges, and trailing edges are exposed to weather and erosion.

(3) Leading edge of aileron is fay, butt joint, and fastener sealed against water entry. In service, wear and abrasion can cause water entry and entrapment and may cause corrosion.

11. **CORROSION INSPECTION.** See WP005 00.

a. Outboard flap:

(1) Exterior surfaces for pitting.

b. Outboard flap seals:

(1) Damage to finish system, fastener area is suspect.

(2) Mating surfaces for wear of metal surface.

(3) Butt joints between graphite epoxy and aluminum alloy seal for galvanic corrosion.

c. Outboard flap attachment parts and nearby structure:

(1) Flap hinge halves and front side of forward spar when leading edge flap/seal doors are removed.

(2) Missile support rib and closures during scheduled/unscheduled maintenance.

(3) Protection system for damage.

d. Torque box:

(1) No inspection required, maintain finish system.

e. Trailing edge:

(1) Clogged drain holes.

(2) Damage to finish system/protection system.

(3) Structure for pitting/surface corrosion.

f. Aileron shroud:

(1) Damage to finish system/protection system.

(2) Pitting/surface corrosion.

g. Aileron:

(1) Damage to finish system/protection system.

(2) Pitting or surface corrosion.

(3) Clogged drain holes.

(4) Fillet seal missing from periphery of bonding springs.

12. **CLEANING.** (WP006 00).

13. **STRIPPING.** (WP007 00).

14. **CORROSION REMOVAL.** (WP005 00).

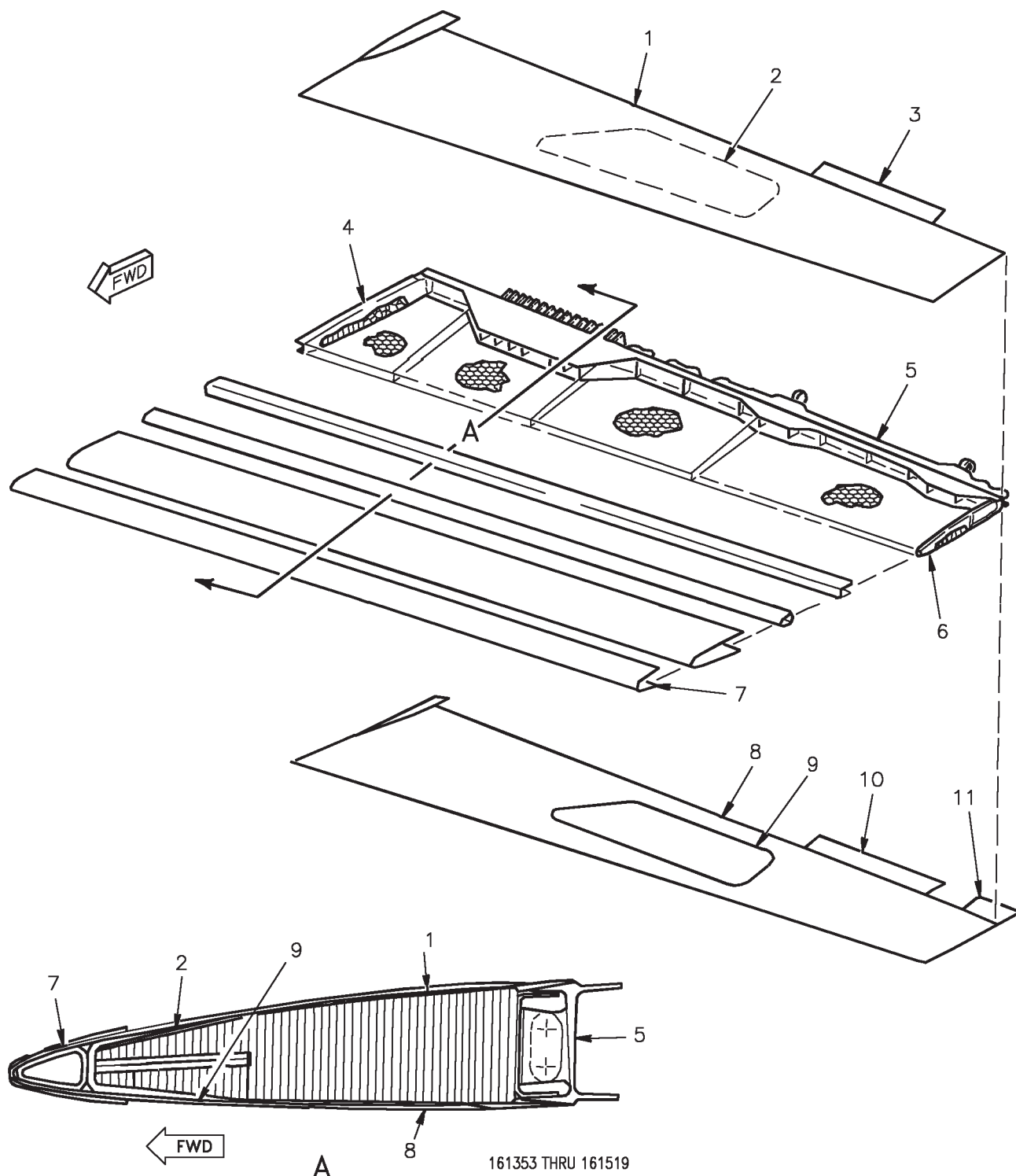
15. **CHEMICAL TREATMENT.** (WP008 00).

16. **FINISH SYSTEM AND MARKINGS.**
(WP027 00).

17. **CLASSIFICATION OF CRITICAL ITEMS/AREAS.**
(A1-F18AC-SRM-210, WP001 01 or
A1-F18AE-SRM-600, WP001 01).

18. **CORROSION DAMAGE EVALUATION AND LIMITS.** (A1-F18AC-SRM-210, WP001 01 or
A1-F18AE-SRM-600, WP001 01).

19. **CORROSION DAMAGE REPAIR.** (WP005 00
and A1-F18AC-SRM-210, WP001 01 or
A1-F18AE-SRM-600, WP001 01).



161353 THRU 161519

Figure 1. Outboard Flap (Sheet 1)

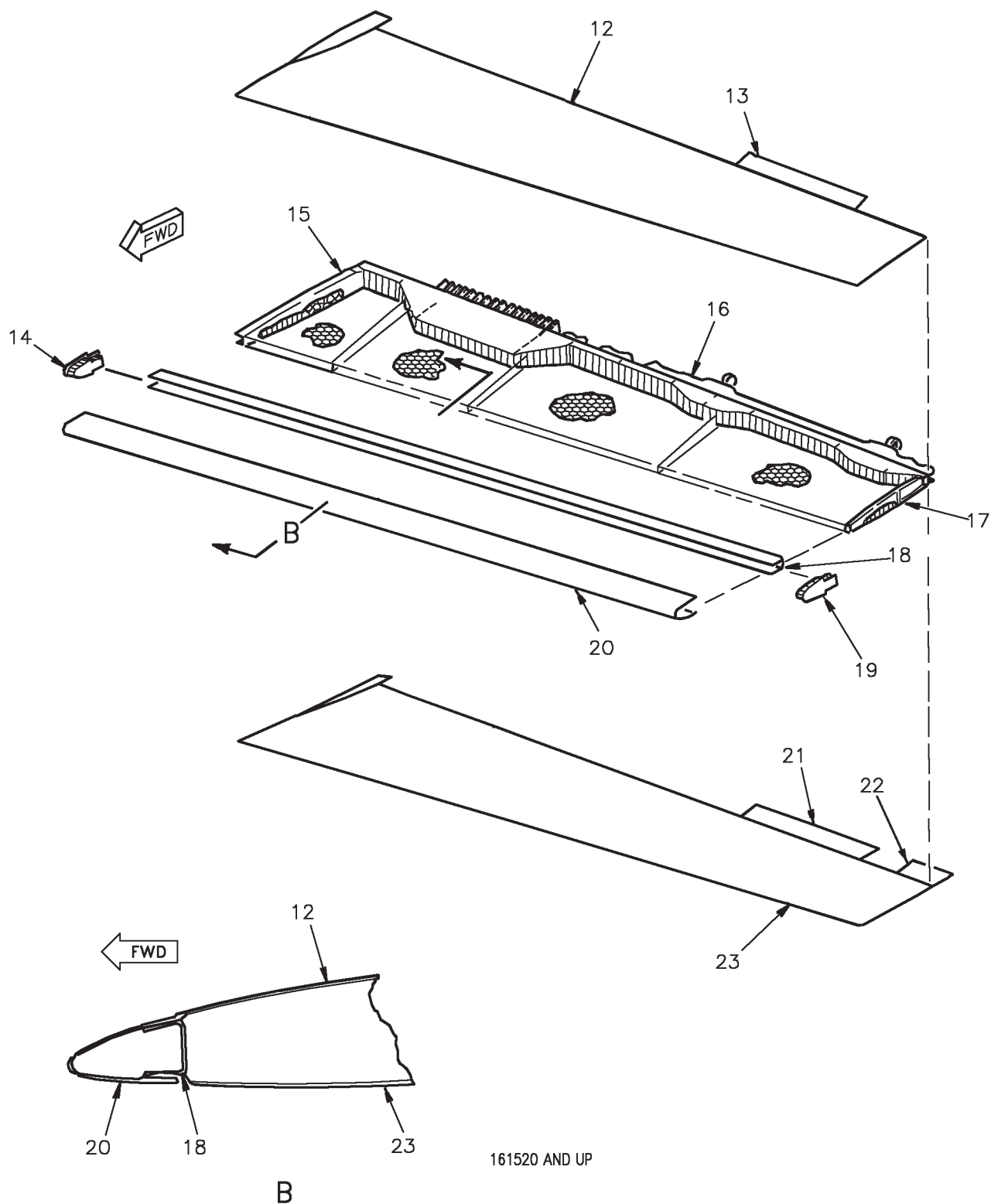
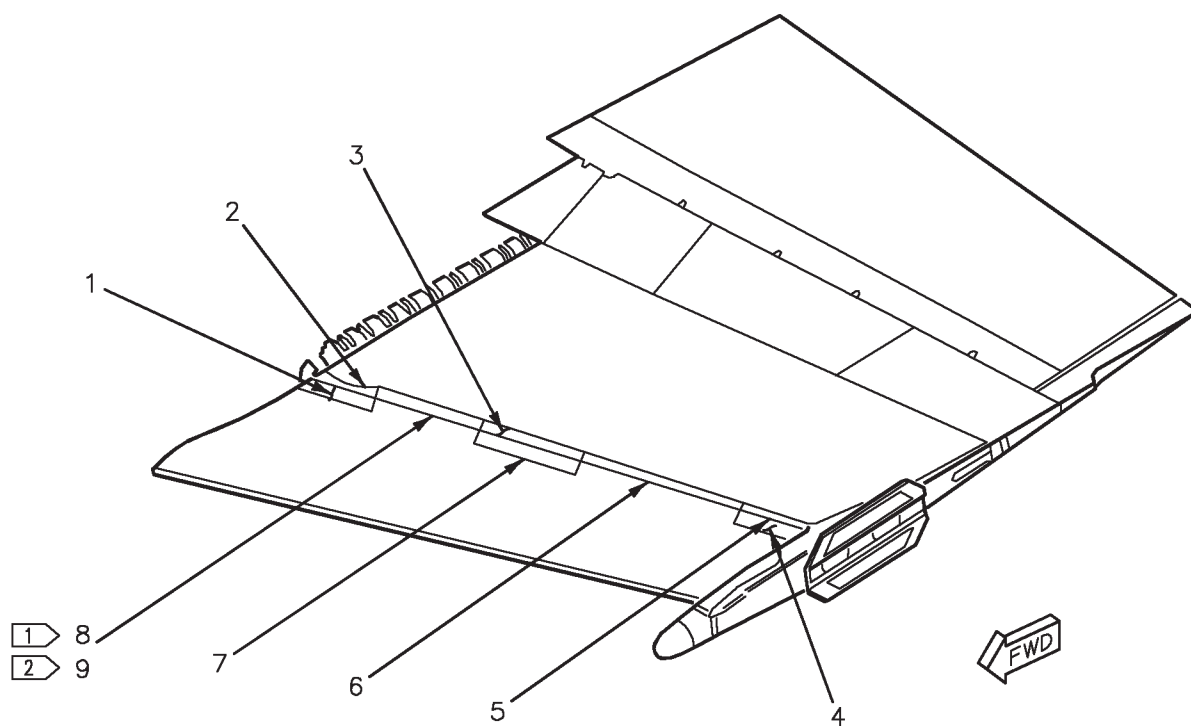


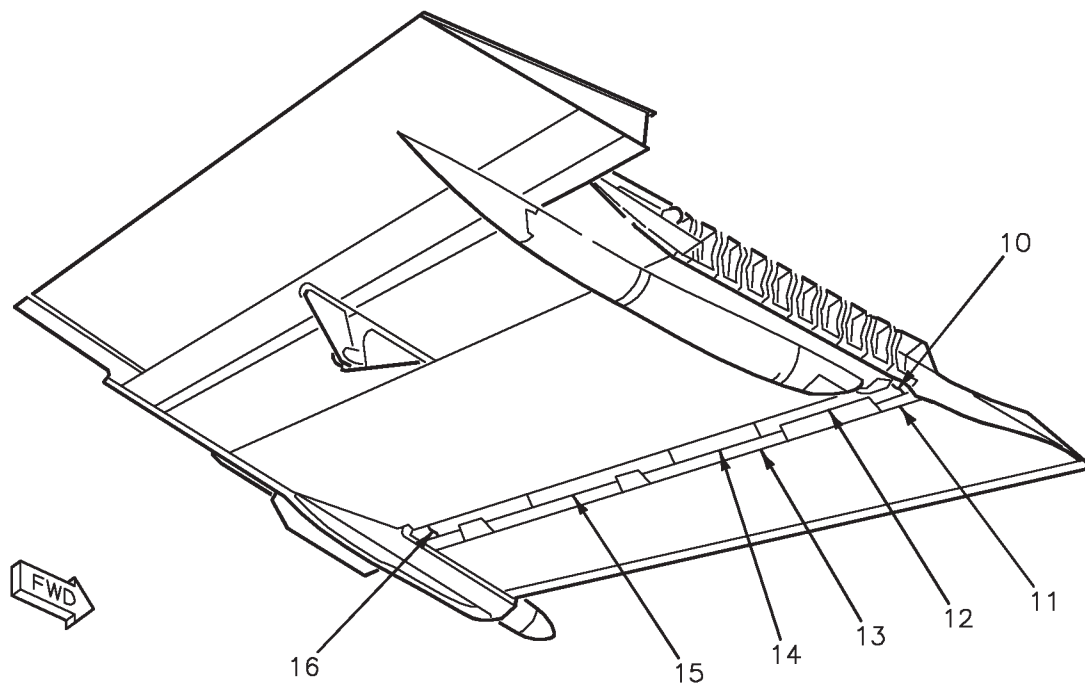
Figure 1. Outboard Flap (Sheet 2)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|-----------------|
| 1 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 2 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 3 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 4 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 5 | Spar | 7075-T73652 Al Aly, Forging | Surface/Pitting |
| 6 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 7 | Cap | 6061-T6 Al Aly, Sheet | Surface/Pitting |
| 8 | Skin | 7075-T7651 Alclad, Plate | Surface |
| 9 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 10 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 11 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 12 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 13 | Seal | 7075-T76 Alclad, Sheet | Surface |
| 14 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 15 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 16 | Spar | 7175-T73652 Al Aly, Forging | Surface/Pitting |
| 17 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 18 | Beam | 7075-T6 Alclad, Sheet | Surface |
| 19 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 20 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 21 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 22 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 23 | Skin | 7075-T7651 Alclad, Plate | Surface |

Figure 1. Outboard Flap (Sheet 3)



UPPER SEALS



LOWER SEALS

Figure 2. Outboard Flap Seals (Sheet 1)





| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---|--|---------------------------|----------------|
| 1 | Seal, Door 91 | 7075-T76 Alclad, Sheet | Pitting |
| 2 | Seal, Door 190 | 7075-T76 Alclad, Sheet | Pitting |
| 3 | Seal, Door 189 | 7075-T76511 Al Aly, Sheet | Pitting |
| 4 | Seal, Door 187 | 7075-T76 Alclad, Sheet | Pitting |
| 5 | Seal, Door 95 | 7075-T76511 Al Aly, Sheet | Pitting |
| 6 | Seal, Door 188 | 7075-T76511 Al Aly, Sheet | Pitting |
| 7 | Seal, Door 93 | 7075-T76 Alclad, Sheet | Pitting |
| 8 | Seal  1 | 7075-T76 Alclad, Sheet | Surface |
| 9 | Seal  2 | 7075-T76 Al Aly, Sheet | Pitting |
| 10 | Seal, Door 181 | 7075-T76 Alclad, Sheet | Pitting |
| 11 | Seal, Door 152 | 7075-T76 Alclad, Sheet | Pitting |
| 12 | Seal, Door 182 | 7075-T76 Alclad, Sheet | Pitting |
| 13 | Seal, Door 153 | 7075-T75 Alclad, Sheet | Pitting |
| 14 | Seal, Door 183 | 7075-T76511 Alclad, Sheet | Pitting |
| 15 | Seal, Door 184 | 7075-T76511 Alclad, Sheet | Pitting |
| 16 | Seal, Door 185 | 7075-T76 Alclad, Sheet | Pitting |
| <p style="text-align: center;">LEGEND</p> <p> 1 161353 THRU 161363.</p> <p> 2 161364 AND UP.</p> | | | |

Figure 2. Outboard Flap Seals (Sheet 2)

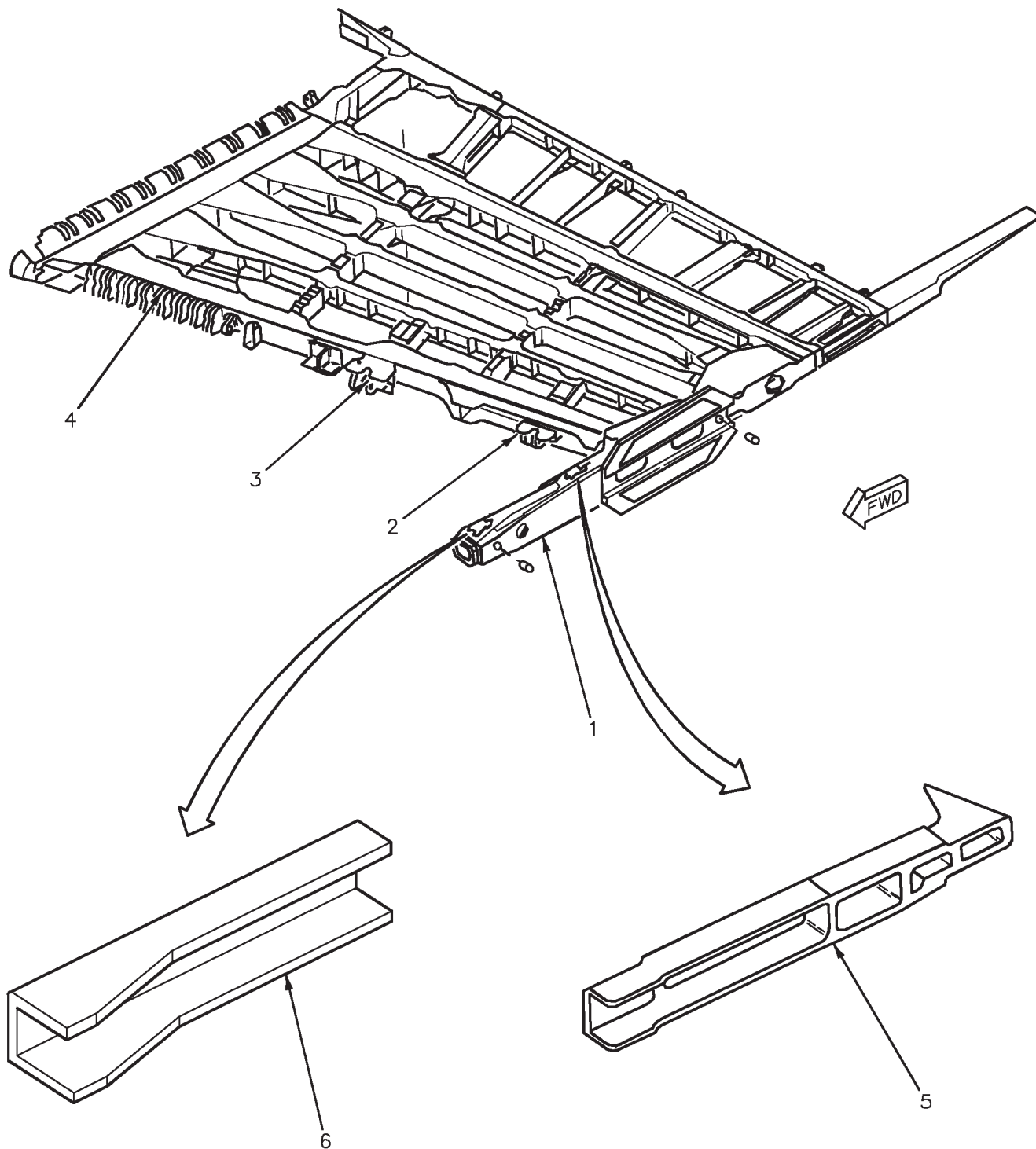


Figure 3. Outboard Flap Attachment Parts and Nearby Structure (Sheet 1)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|-----------------|
| 1 | Rib | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 2 | Hinge Half | 7050-T73651 Al Aly, Sheet | Surface/Pitting |
| 3 | Hinge Half | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 4 | Spar | 7175-T73652 Al Aly, Forging | Surface/Pitting |
| 5 | Closure | 7050-T73652 Al Aly, Forging | Surface/Pitting |
| 6 | Closure | 7050-T76 Alclad, Sheet | Surface |

Figure 3. Outboard Flap Attachment Parts and Nearby Structure (Sheet 2)

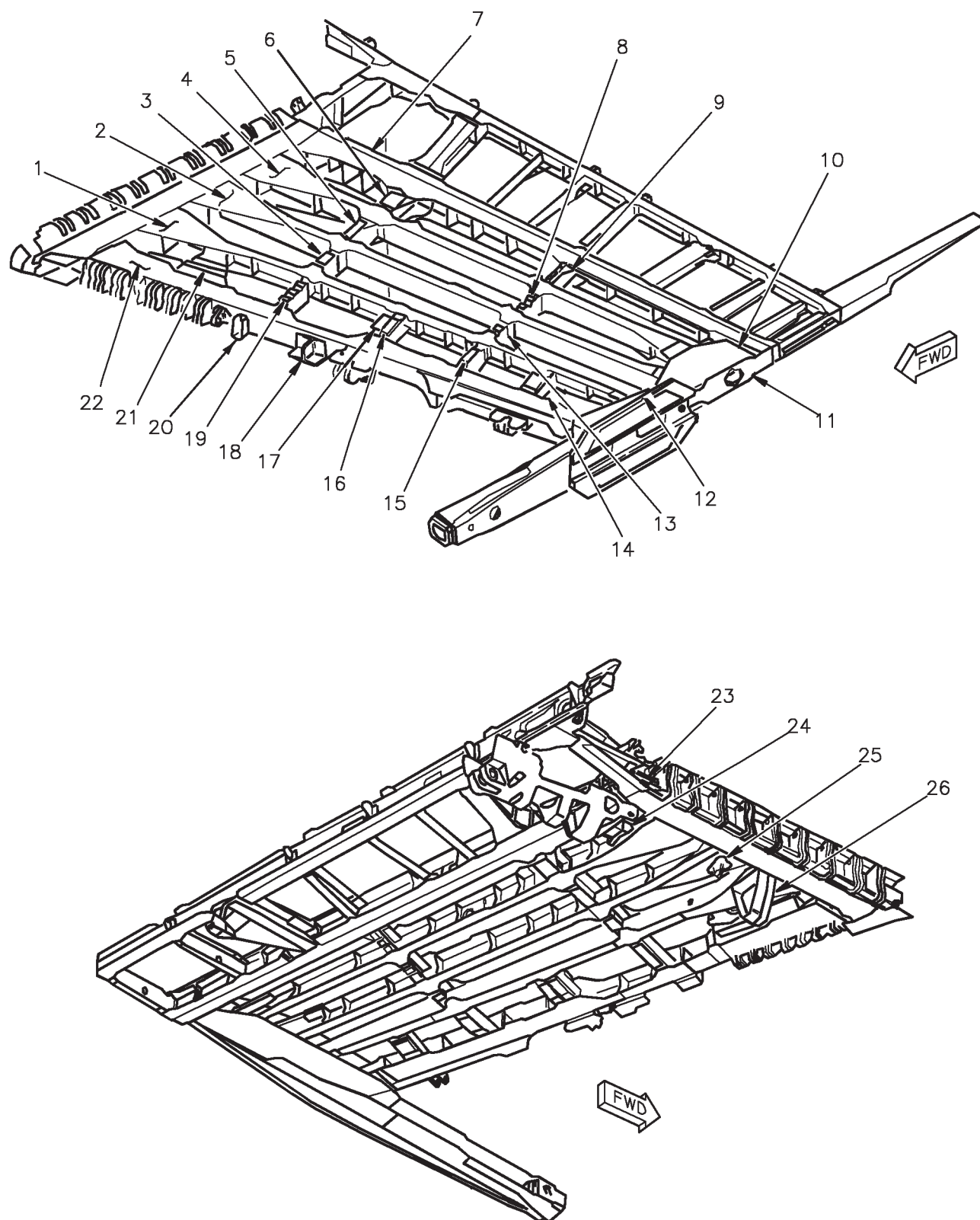


Figure 4. Torque Box (Sheet 1)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|-----------------|
| 1 | Spar | 7075-T73651 Al Aly, Plate | Surface/Pitting |
| 2 | Spar | 7050-T73651 Al Aly, Plate | Pitting |
| 3 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 4 | Spar | 7050-T73651 Al Aly, Plate | Pitting |
| 5 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 6 | Rib | 7075-T73651 Al Aly, Forging | Pitting |
| 7 | Spar | 7050-T73651 Al Aly, Plate | Pitting |
| 8 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 9 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 10 | Support | 7075-T73511 Al Aly, Extrusion | Pitting |
| 11 | Closure | 7075-T6 Alclad, Sheet | Surface |
| 12 | Hinge | 7050-T73652 Al Aly, Forging | Pitting |
| 13 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 14 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 15 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 16 | Rib | 7050-T73651 Al Aly, Sheet | Pitting |
| 17 | Rib | 7050-T73651 Al Aly, Sheet | Pitting |
| 18 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 19 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 20 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 21 | Rib | 7075-T73651 Al Aly, Forging | Pitting |
| 22 | Spar | 7175-T73652 Al Aly, Forging | Pitting |
| 23 | Support | 7075-T6 Alclad, Sheet | Surface |
| 24 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 25 | Support | 7075-T73511 Al Aly, Extrusion | Pitting |

Figure 4. Torque Box (Sheet 2)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------|----------------|
| 26 | Support | 7075-T7351 Al Aly, Plate | Pitting |

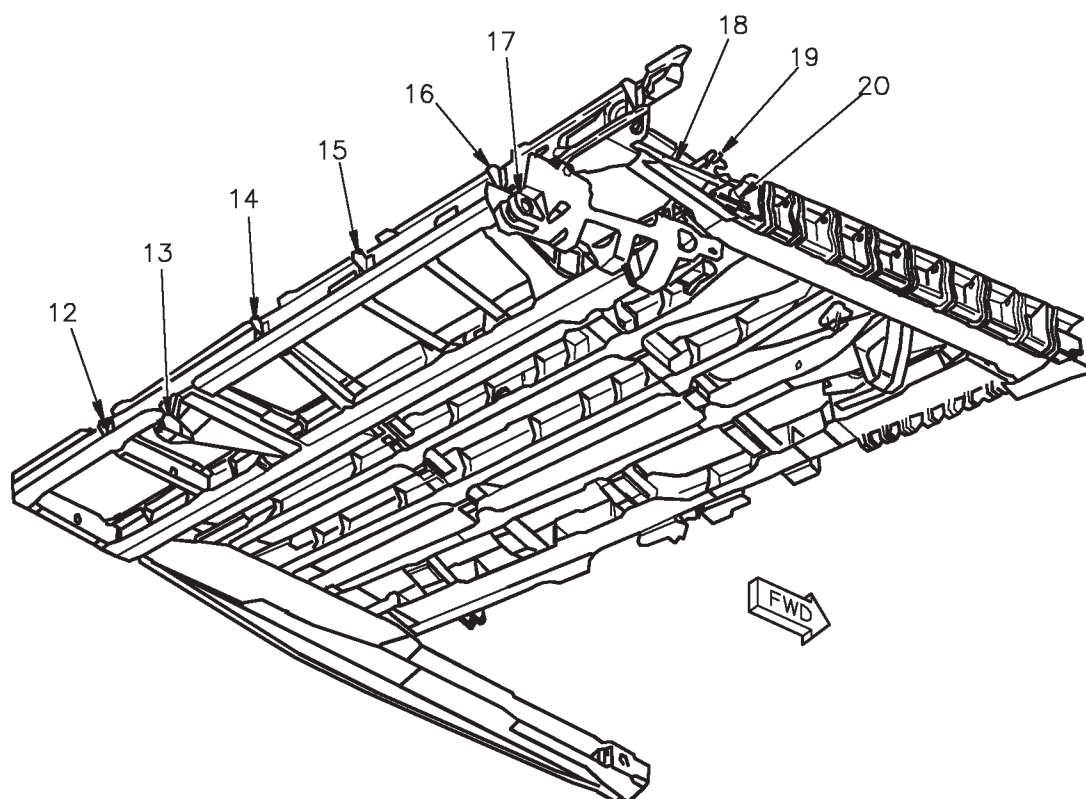
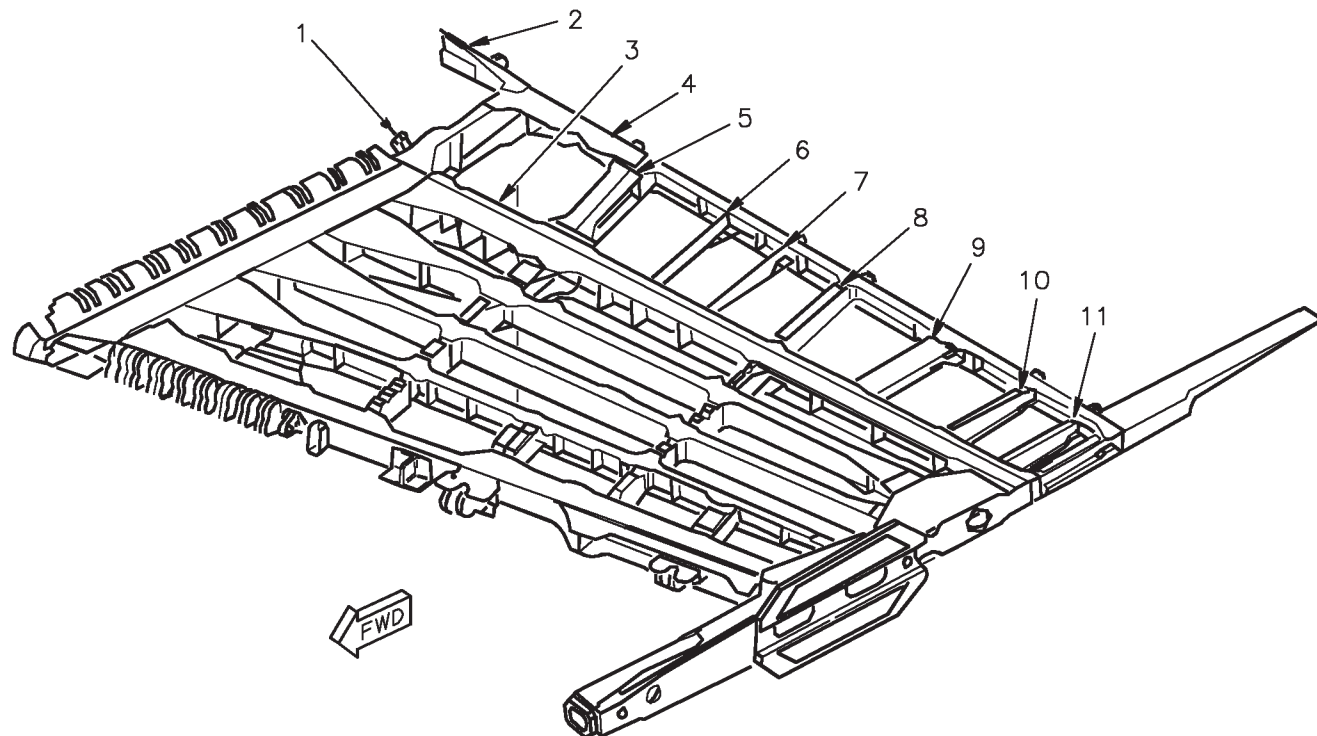


Figure 5. Trailing Edge (Sheet 1)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 1 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 2 | Hinge | 7075-T7351 Al Aly, Plate | Pitting |
| 3 | Spar | 7050-T73651 Al Aly, Plate | Pitting |
| 4 | Spar | 7050-T73651 Al Aly, Plate | Pitting |
| 5 | Rib | 7075-T73651 Al Aly, Forging | Pitting |
| 6 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 7 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 8 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 9 | Rib | 7050-T73651 Al Aly, Plate | Pitting |
| 10 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 11 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 12 | Hinge | 7075-T73511 Al Aly, Extrusion | Pitting |
| 13 | Hinge | 7050-T73652 Al Aly, Forging | Pitting |
| 14 | Hinge | 7075-T73511 Al Aly, Extrusion | Pitting |
| 15 | Hinge | 7075-T73511 Al Aly, Extrusion | Pitting |
| 16 | Hinge | 7075-T73511 Al Aly, Extrusion | Pitting |
| 17 | Hinge | 7075-T7354 Al Aly, Forging | Pitting |
| 18 | Stiffener | 7075-T6 Alclad, Sheet | Surface |
| 19 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 20 | Support | 7075-T6 Alclad, Sheet | Surface |

Figure 5. Trailing Edge (Sheet 2)

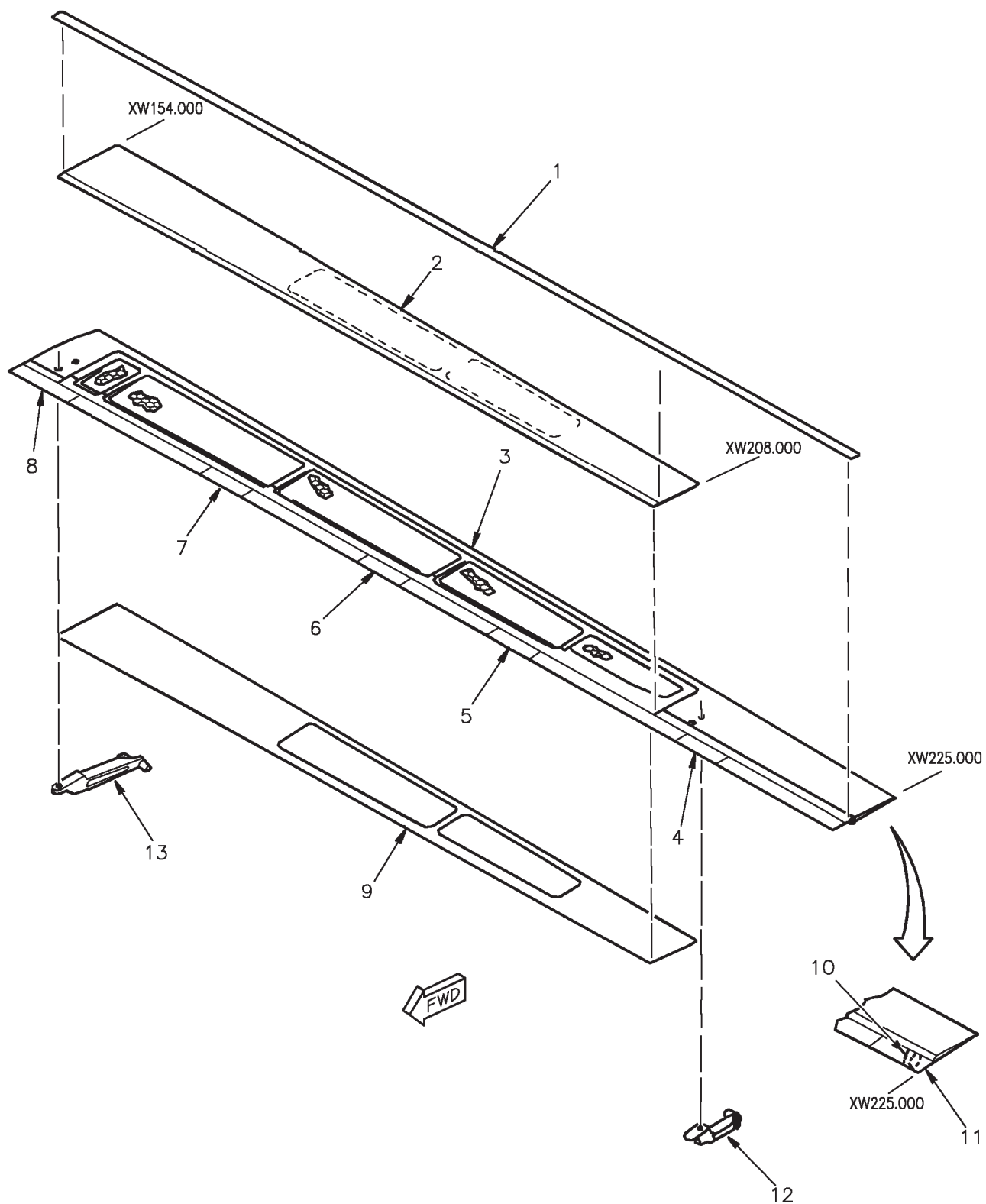


Figure 6. Aileron Shroud (Sheet 1)








| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|--|--|--------------------------|----------------|
| 1 | Wiper | 7075-T6 Alclad, Sheet | Surface |
| 2 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 3 | Frame | 7075-T7351 Al Aly, Sheet | Pitting |
| 4 | Seal  | 7075-T6 Alclad, Sheet | Surface |
| 5 | Seal  | 7075-T6 Alclad, Sheet | Surface |
| 6 | Seal  | 7075-T6 Alclad, Sheet | Surface |
| 7 | Seal  | 7075-T6 Alclad, Sheet | Surface |
| 8 | Seal  | 7075-T6 Alclad, Sheet | Surface |
| 9 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 10 | Hinge | 7075-T7351 Al Aly, Sheet | Pitting |
| 11 | Seal  | 7075-T6 Alclad, Sheet | Surface |
| 12 | Arm | 7075-T7351 Al Aly, Sheet | Pitting |
| 13 | Arm | 7075-T7351 Al Aly, Sheet | Pitting |
| <p style="text-align: center;">LEGEND</p> <p> 161520 AND UP.</p> | | | |

Figure 6. Aileron Shroud (Sheet 2)

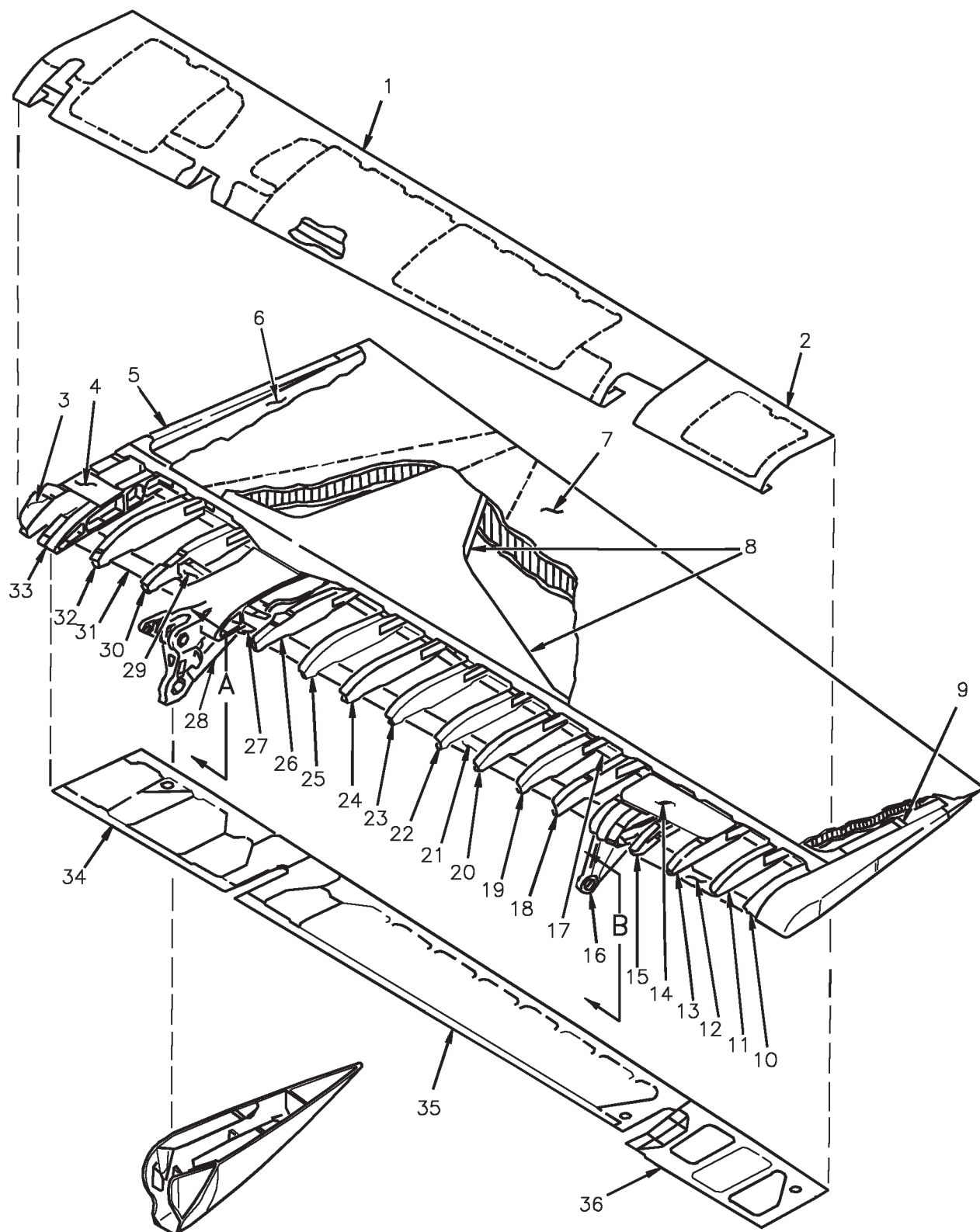


Figure 7. Aileron (Sheet 1)

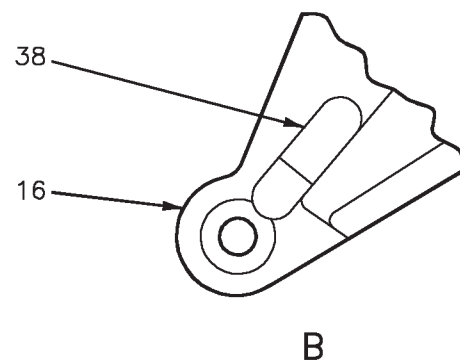
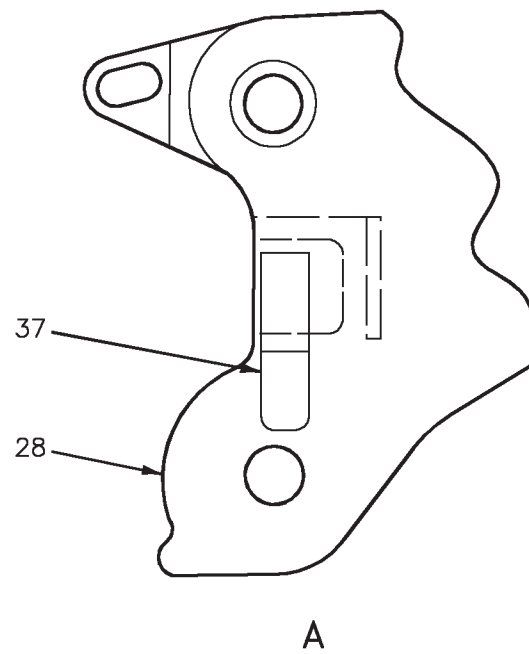


Figure 7. Aileron (Sheet 2)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|----------------|
| 1 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 2 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 3 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 4 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 5 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 6 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 7 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 8 | Plate | 7075-T76 Al Aly, Sheet | Pitting |
| 9 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 10 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 11 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 12 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 13 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 14 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 15 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 16 | Hinge | 7050-T73652 Al Aly, Forging | Pitting |
| 17 | Spar | 7075-T6 Alclad, Sheet | Surface |
| 18 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 19 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 20 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 21 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 22 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 23 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 24 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 25 | Rib | 7075-T6 Alclad, Sheet | Surface |

Figure 7. Aileron (Sheet 3)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|----------------|
| 26 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 27 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 28 | Rib | 7050-T73652 Al Aly, Forging | Pitting |
| 29 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 30 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 31 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 32 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 33 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 34 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 35 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 36 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 37 | Bonding Spring | 17-7PH CRES | Pitting |
| 38 | Bonding Spring | 17-7PH CRES | Pitting |

Figure 7. Aileron (Sheet 4)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

INNER AND OUTER WING SEALING

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |

Alphabetical Index

| Subject | Page No. |
|--------------------|----------|
| Introduction | 1 |
| Sealing..... | 1 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. Sealing of the inner and outer wing is for corrosion control. Sealing prevents moisture entry, dissimilar metal contact, and provides a barrier between structure, skin, and the elements. The inner and outer wing is made up of inner and outer wing structure assemblies, trailing edge flap and shroud, aileron and shroud, and inboard and outboard flaps.

3. **SEALING.** Use MIL-S-83430, class B-4 sealing compound (WP010 00 and A1-F18AC-SRM-200,

WP011 00). Use class B for fay surface, form in place, butt joint, and fastener sealing. MIL-S-8802 or MIL-S-81733 is the alternate, except when sealing graphite epoxy structure or installing form in place seals.

a. Removable covers/doors or access panels on mold line surfaces are sealed with form in place seals.

NOTE

Fay surface and butt joint sealing may be done simultaneously by being sure sealant squeeze out from the fay surfaces fills the butt joint gap.

b. The periphery of all external permanent skins, structure, components, or parts are fay surface sealed. This includes items attached with removable fasteners and do not require removal for scheduled maintenance.

c. The periphery of all external permanent skins, structure, components, or parts are butt joint or fillet sealed.

d. All permanent fasteners except aluminum rivets, see step e below, installed in mold line are installed wet with sealing compound.

e. Aluminum rivets in mold line surfaces are installed with primer or sealant, except fast rivets, which are wet installed with primer.

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

INNER AND OUTER WING FINISH SYSTEM AND MARKINGS

Reference Material

| | |
|---------------------------------|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Structure Repair, Wing..... | A1-F18AE-SRM-600 |

Alphabetical Index

| Subject | Page No. |
|----------------------------|----------|
| Description | 1 |
| Aircraft Refinishing | 3 |
| Finish System | 2 |
| Markings..... | 3 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|--------------|---------|
| F/A-18 AFC 150 | — | Addition of Alignment Striping to Inboard Aileron Hinge and Inboard Attach Point of Outer Wing (ECP RAMEC NORIS-11-90) | 1 Dec 92 | — |

1. DESCRIPTION.

2. Inner and outer wing are made up of wing structural assemblies, trailing edge flap and shroud, aileron and shroud, and inboard and outboard leading edge flaps. Surface materials are graphite epoxy composite and aluminum alloys. On 163985 AND UP, some parts require different damage evaluation which may affect finish system application. For identification of these parts, refer to applicable work package in A1-F18AE-SRM-600.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

MIL-P-23377 TY1
MIL-P-85582,
TY1CL1 or CL2
MIL-P-23377, TY2
MIL-P-85582,
TY2CL1

Primer
Primer
Primer
Primer

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|---------------------|---|
| MIL-C-83286 | Aliphatic Polyurethane Enamel |
| MIL-C-85285, TY1 | Coating, Polyurethane, High Solids |
| 8681-GREY-36320-3IN | Plastic Strip, Press (Polyurethane Tape) |
| MIL-L-19538 | Acrylic Lacquer Gray, FED-STD-595 Color No. 36081 |

3. FINISH SYSTEM. See figure 1.**WARNING**

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

b. One coat MIL-P-23377, Type 2, Class 1 primer on mold line surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) White, FED-STD-595 color no. 17925, aliphatic polyurethane enamel:

(a) Trailing edge flap actuator compartment, (door 78).

(b) Aileron actuator compartment, (door 83).

(2) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.

(3) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.

(4) Gray, FED-STD-595 color no. 36320, aliphatic polyurethane enamel.

NOTE

3.00 inch wide polyurethane tape applied to inboard leading edge flap.

2.50 inch wide polyurethane tape applied to outboard leading edge flap.

d. Apply 8681 polyurethane tape to the leading edges of the inboard and outboard leading edge flaps. See figure 1 for location. For polyurethane tape application (WP012 00).

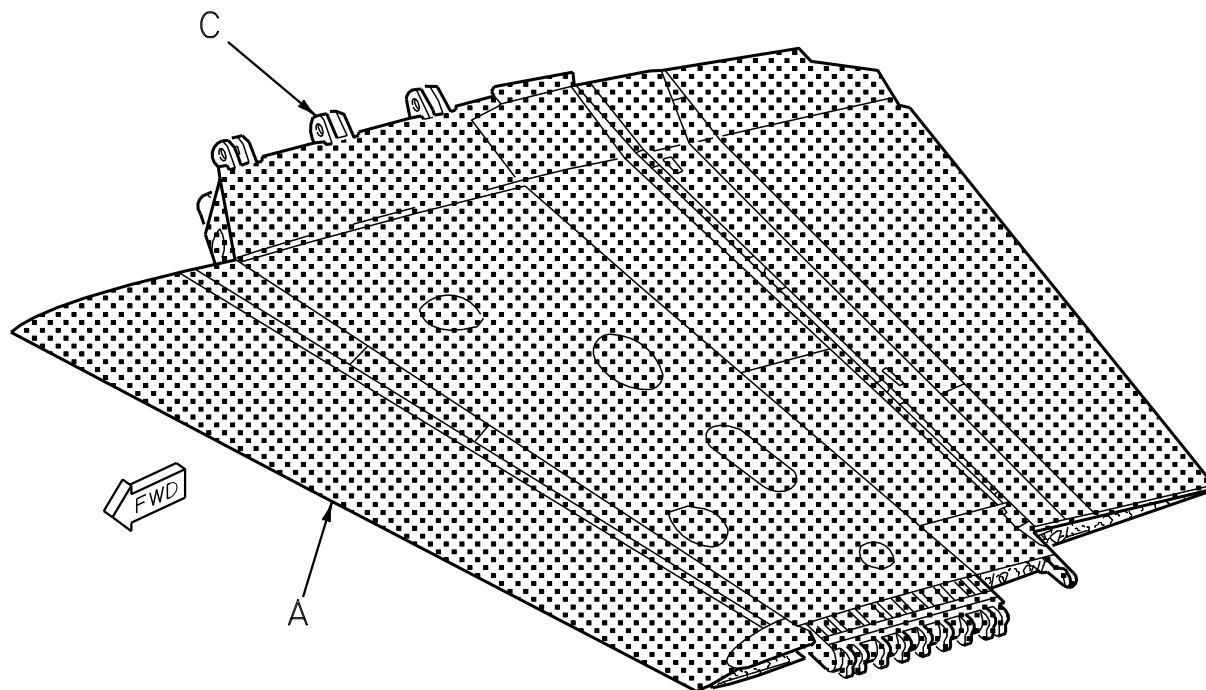
4. **MARKINGS.** See figures 2, 3, and 4.

a. Markings are silk screen applied using contrasting commercial gray enamel. Use table 1 to determine applicable marking color number.

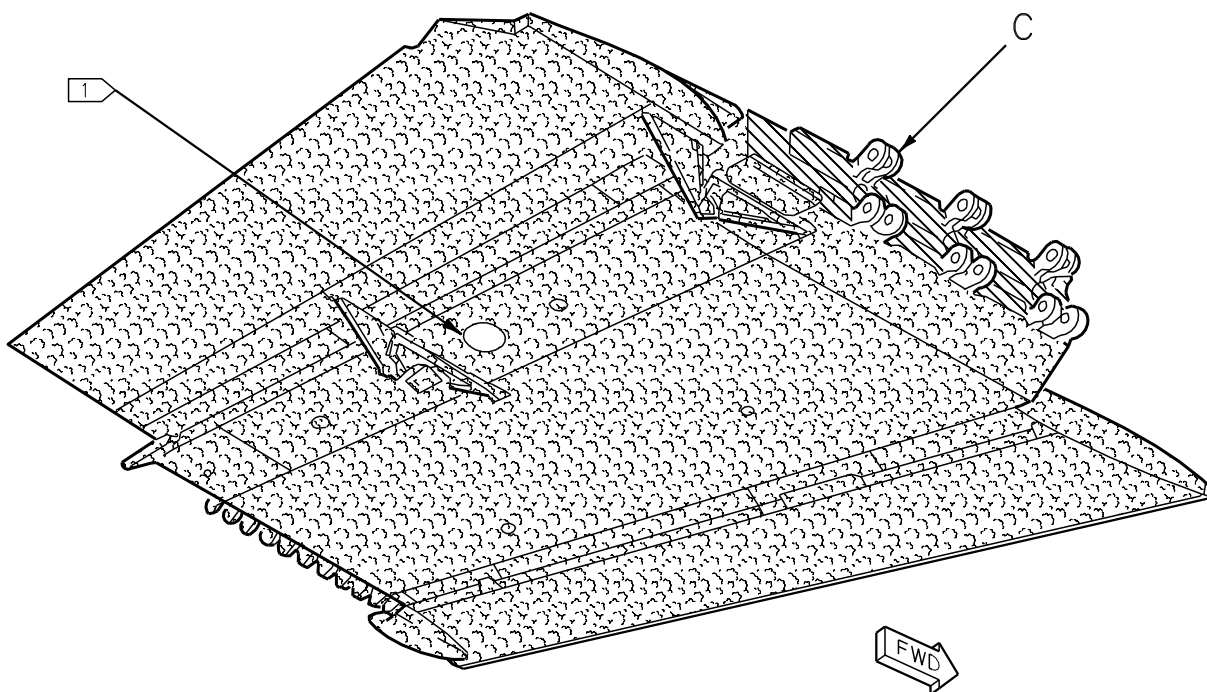
5. **AIRCRAFT REFINISHING.** On 161353 THRU 161925, if complete aircraft requires refinishing, use finish system color diagram shown on figure 1 for 161926 THRU 163175.

Table 1. Marking Color Number

| Finish System Color Number | Marking Color Number |
|--|--|
| <div>3</div> Gray, FED-STD-595 color no. 36320 <div>4</div> Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36375 |
| <div>1</div> Gray, FED-STD-595 color no. 36375 <div>2</div> Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36320 |
| Gray, FED-STD-595 color no. 36495 | Gray, FED-STD-595 color no. 36375 |
| <div>5</div> Gray, FED-STD-595 color no. 36375, or Gray, FED-STD-595 color no. 36495 | Gray, FED-STD-595 color no. 36081 |
| <div>6</div> Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 36320 |
| LEGEND <div>1</div> 161353 THRU 161925. <div>2</div> 161926 AND UP. <div>3</div> F/A-18A 161926 THRU 161929. <div>4</div> 161930 AND UP. <div>5</div> 161353 THRU 164946, 164948, 164950 AFTER F/A-18 AFC 150. Use this marking color number when adding alignment striping to inboard aileron hinge. See figure 4 for marking location. <div>6</div> 164947, 164949, 164951 AND UP. Use this marking color number when adding alignment striping to inboard aileron hinge. See figure 4 for marking locations. | |



INNER WING, LOOKING DOWN
161926 AND UP



INNER WING, LOOKING UP

Figure 1. Finish System (Sheet 1)

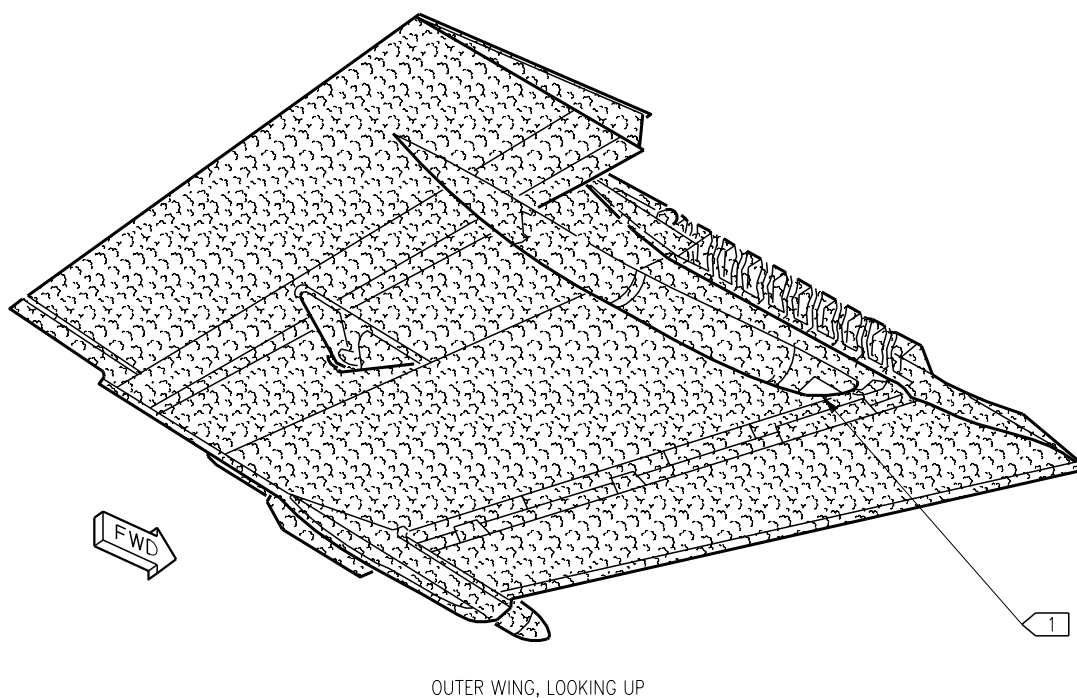
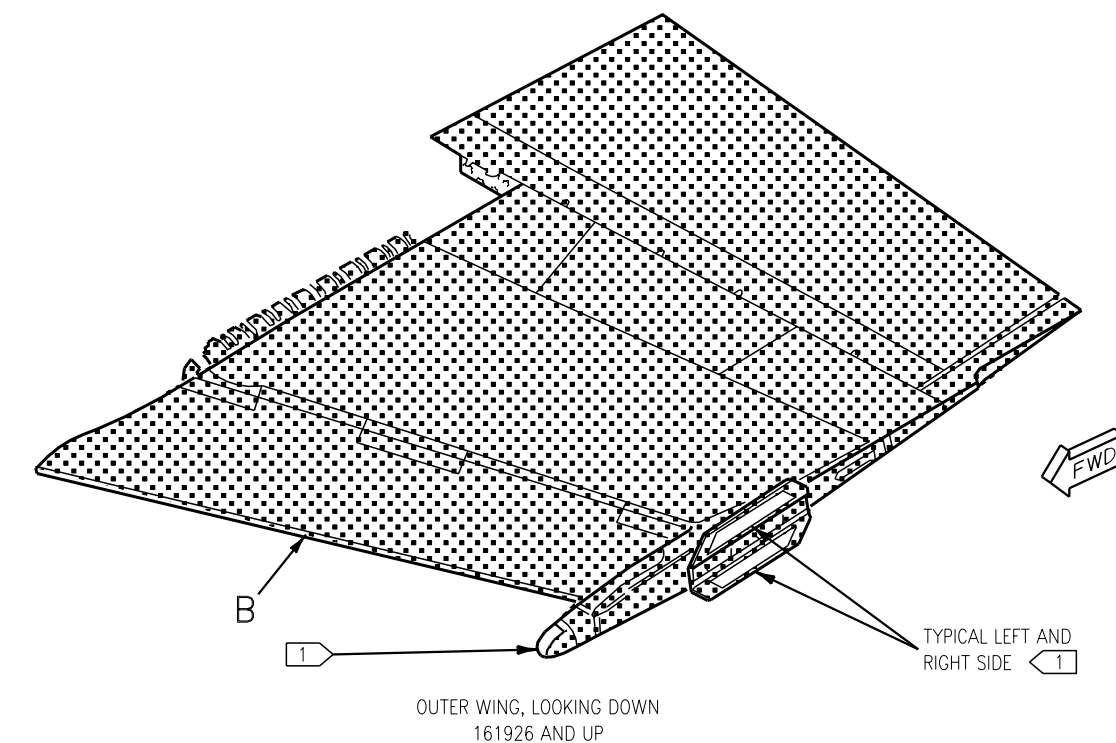
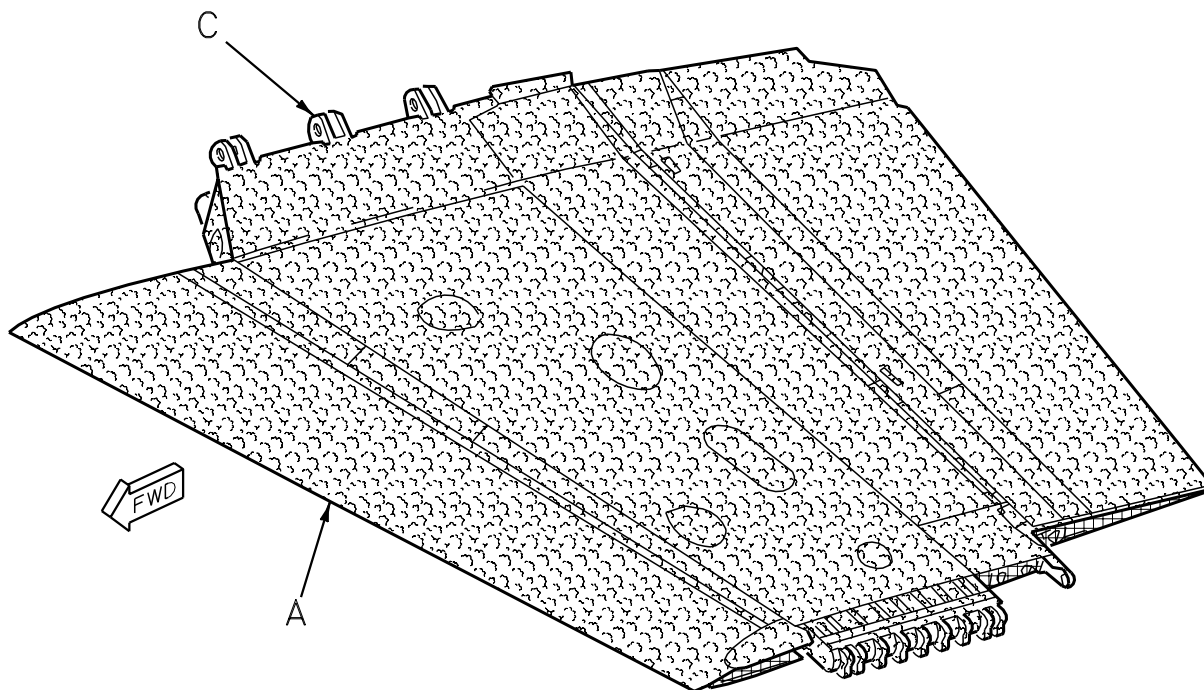
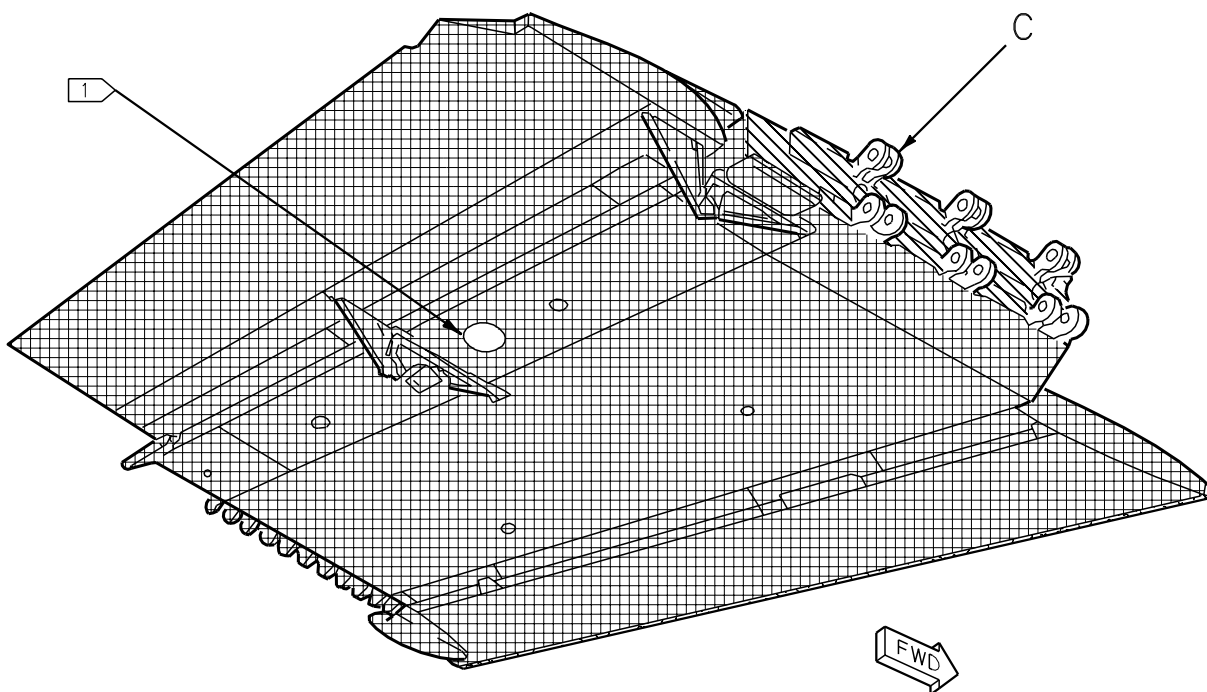


Figure 1. Finish System (Sheet 2)

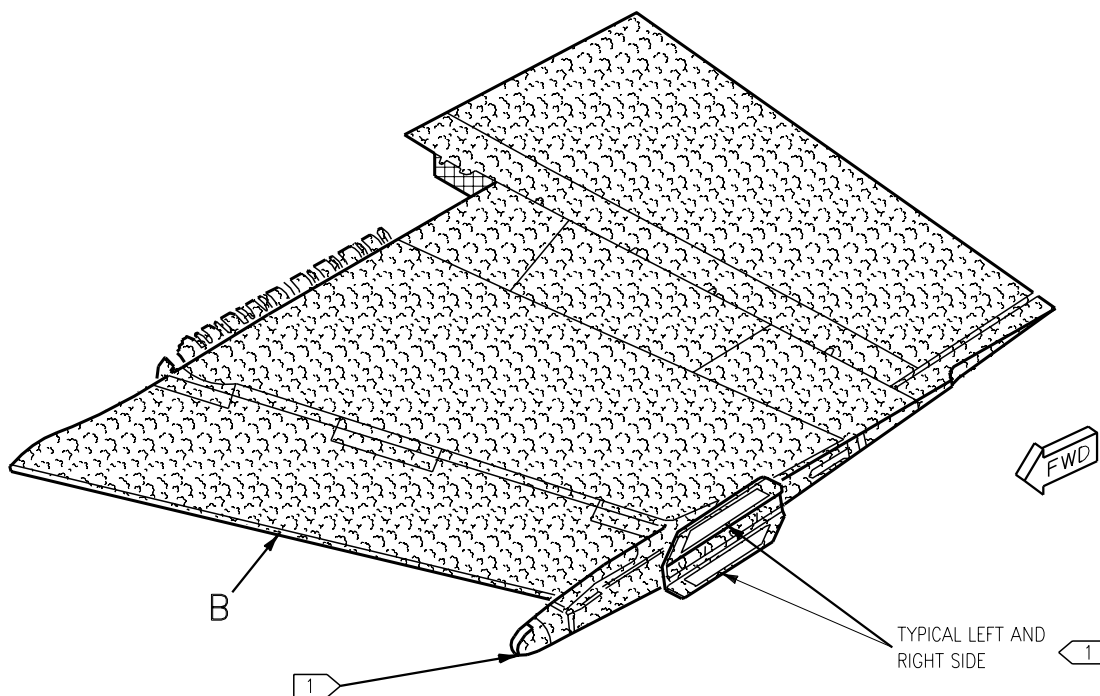


INNER WING, LOOKING DOWN
161353 THRU 161925

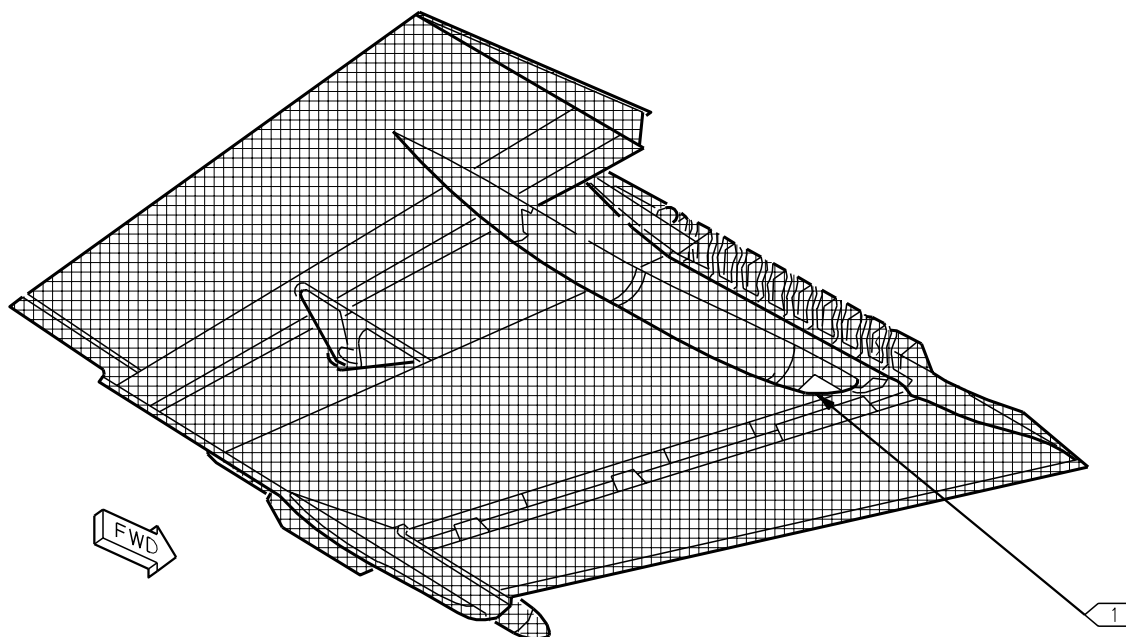


INNER WING, LOOKING UP

Figure 1. Finish System (Sheet 3)

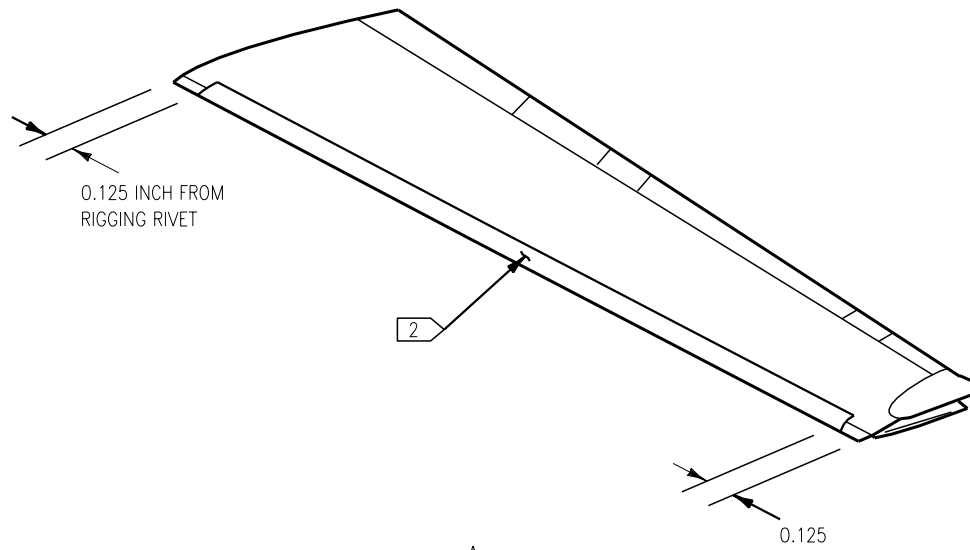


OUTER WING, LOOKING DOWN
161353 THRU 161925

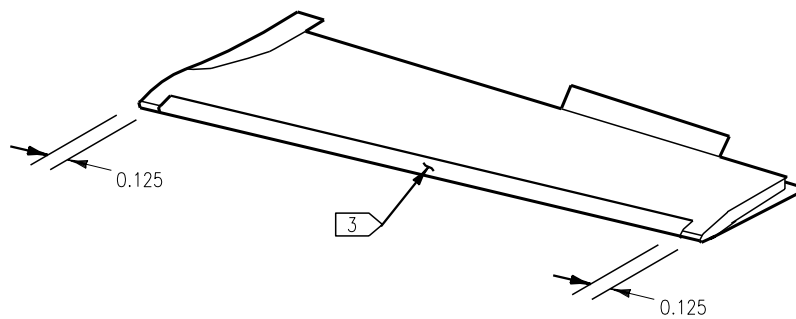


OUTER WING, LOOKING UP

Figure 1. Finish System (Sheet 4)

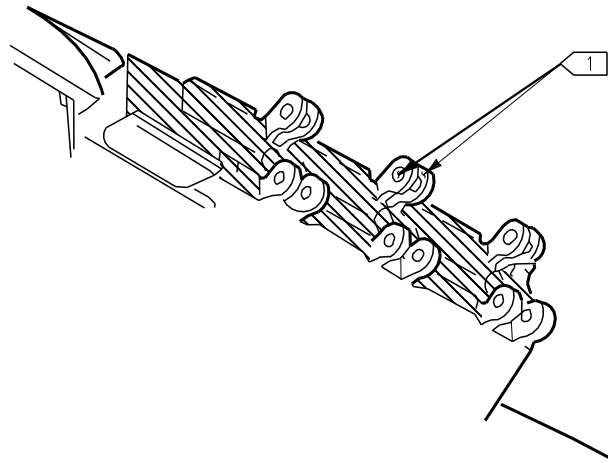


A



B

Figure 1. Finish System (Sheet 5)



C

WING ROOT LUGS
TYPICAL

LEGEND

GRAY, FED-STD-595 COLOR NO. 36320,
ALIPHATIC POLYURETHANE ENAMEL.GRAY, FED-STD-595 COLOR NO. 36375,
ALIPHATIC POLYURETHANE ENAMEL.GRAY, FED-STD-595 COLOR NO. 36495,
ALIPHATIC POLYURETHANE ENAMEL.WHITE, FED-STD-595 COLOR NO. 17925,
ALIPHATIC POLYURETHANE ENAMEL.

DO NOT PAINT.

3.00 INCH WIDE POLYURETHANE TAPE
APPLIED TO INBOARD LEADING EDGE FLAP.2.50 INCH WIDE POLYURETHANE TAPE
APPLIED TO OUTBOARD LEADING EDGE FLAP.

Figure 1. Finish System (Sheet 6)

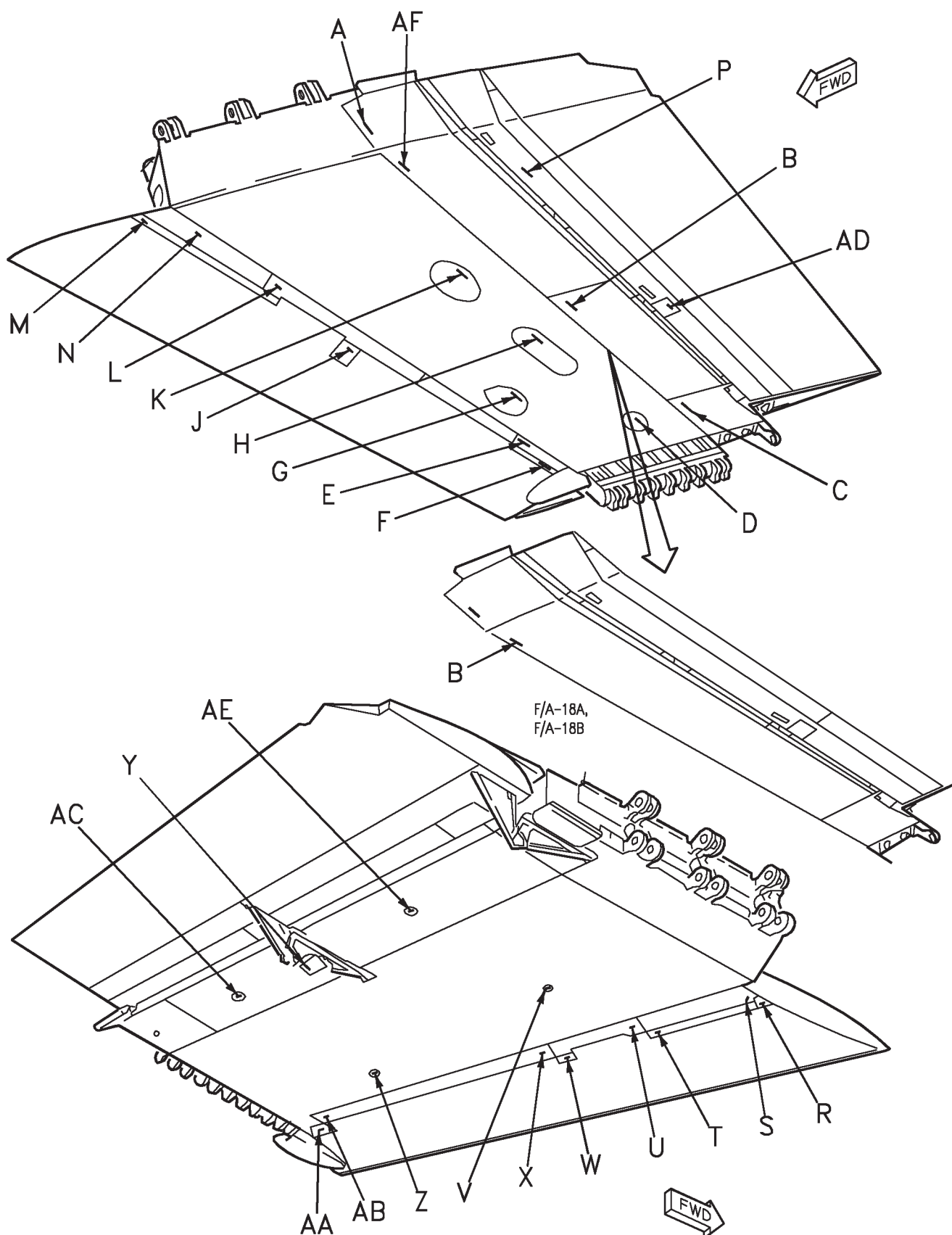
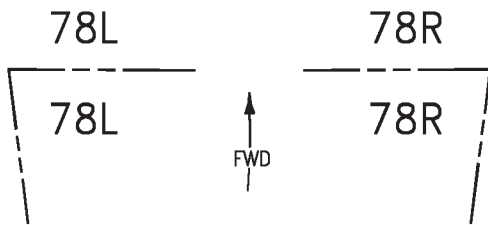
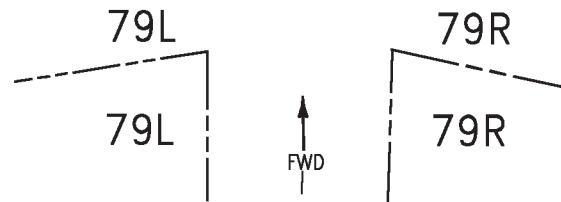


Figure 2. Inner Wing Door Markings (Sheet 1)



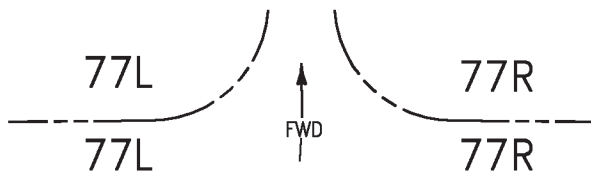
A

74A950078



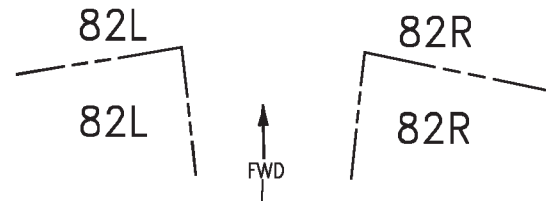
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74A950079



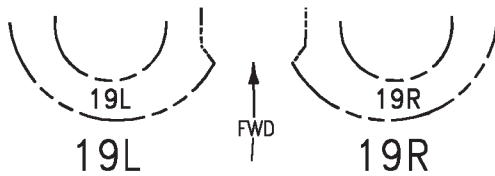
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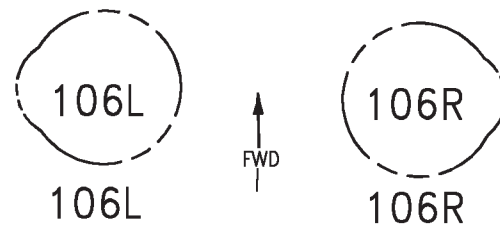
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74A950082



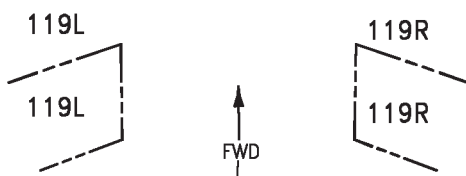
G

2 74A950019



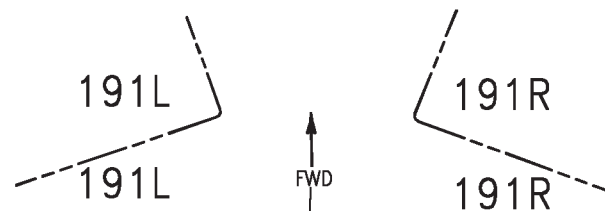
D

74A950106



F

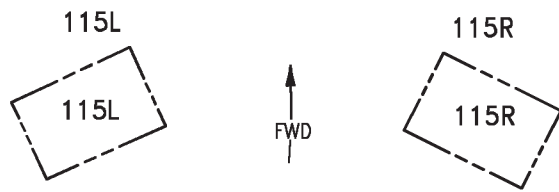
74A950119



E

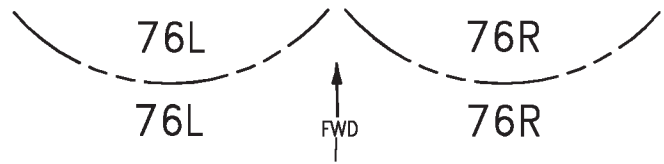
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Figure 2. Inner Wing Door Markings (Sheet 2)



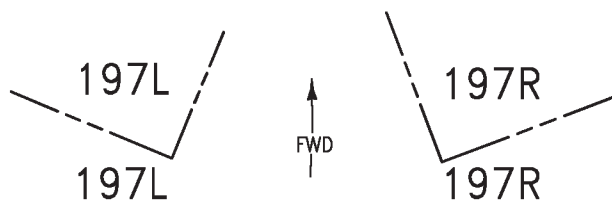
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74A950115



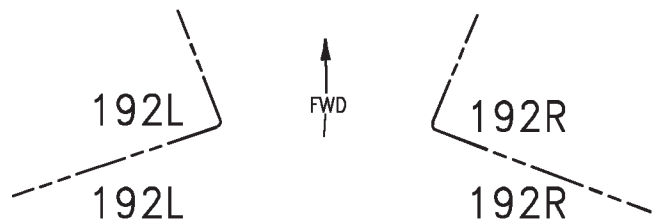
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74A950076



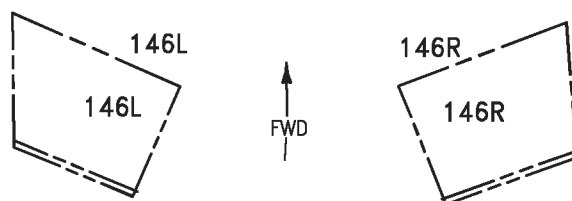
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1 74A950197



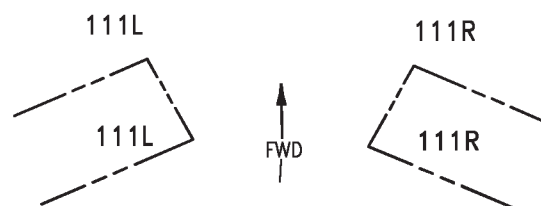
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74A950192



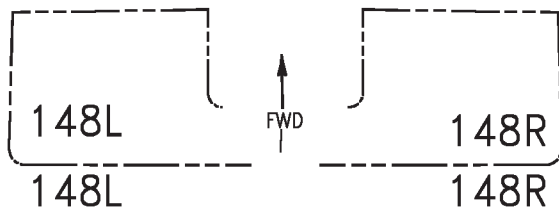
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74A950146



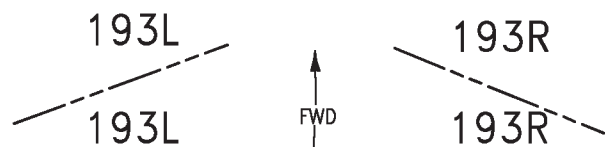
M

74A950111



P

3 74A950148



N

74A950193

Figure 2. Inner Wing Door Markings (Sheet 3)

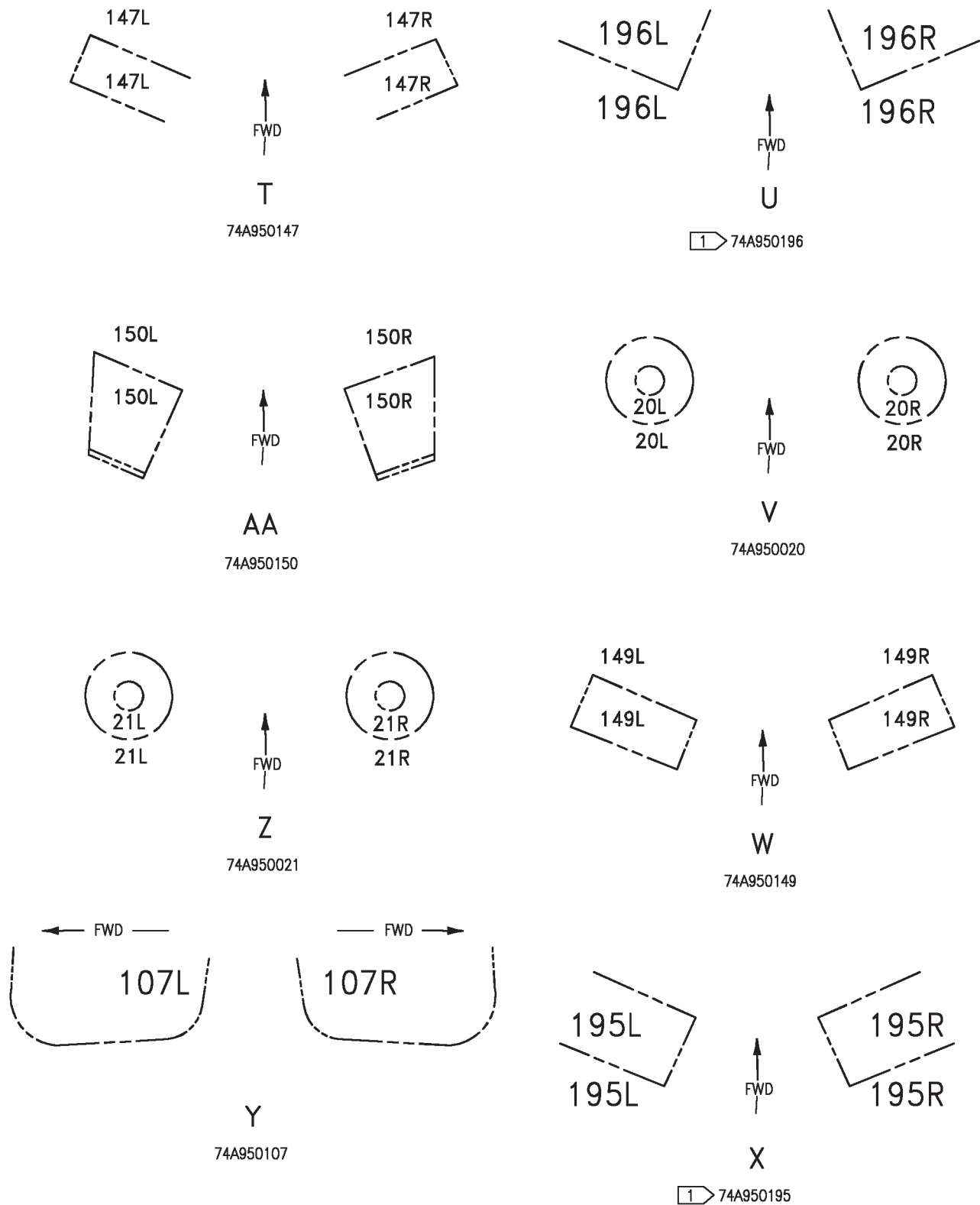
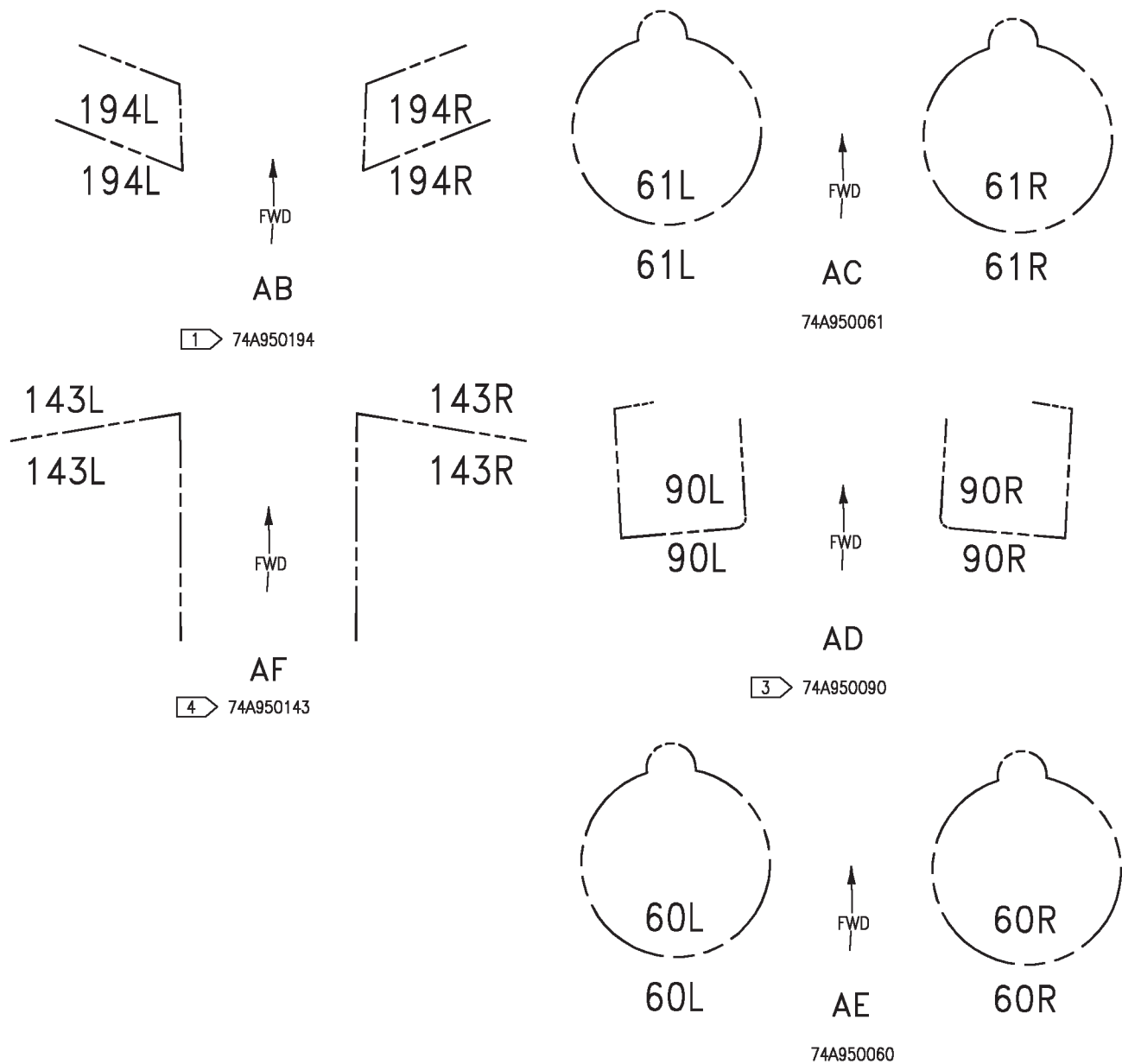


Figure 2. Inner Wing Door Markings (Sheet 4)



LEGEND

- 1 F/A-18A 161353
- 2 161353 THRU 161724
- 3 F/A-18A 161353 THRU 161519
- 4 F/A-18C,F/A-18D

Figure 2. Inner Wing Door Markings (Sheet 5)

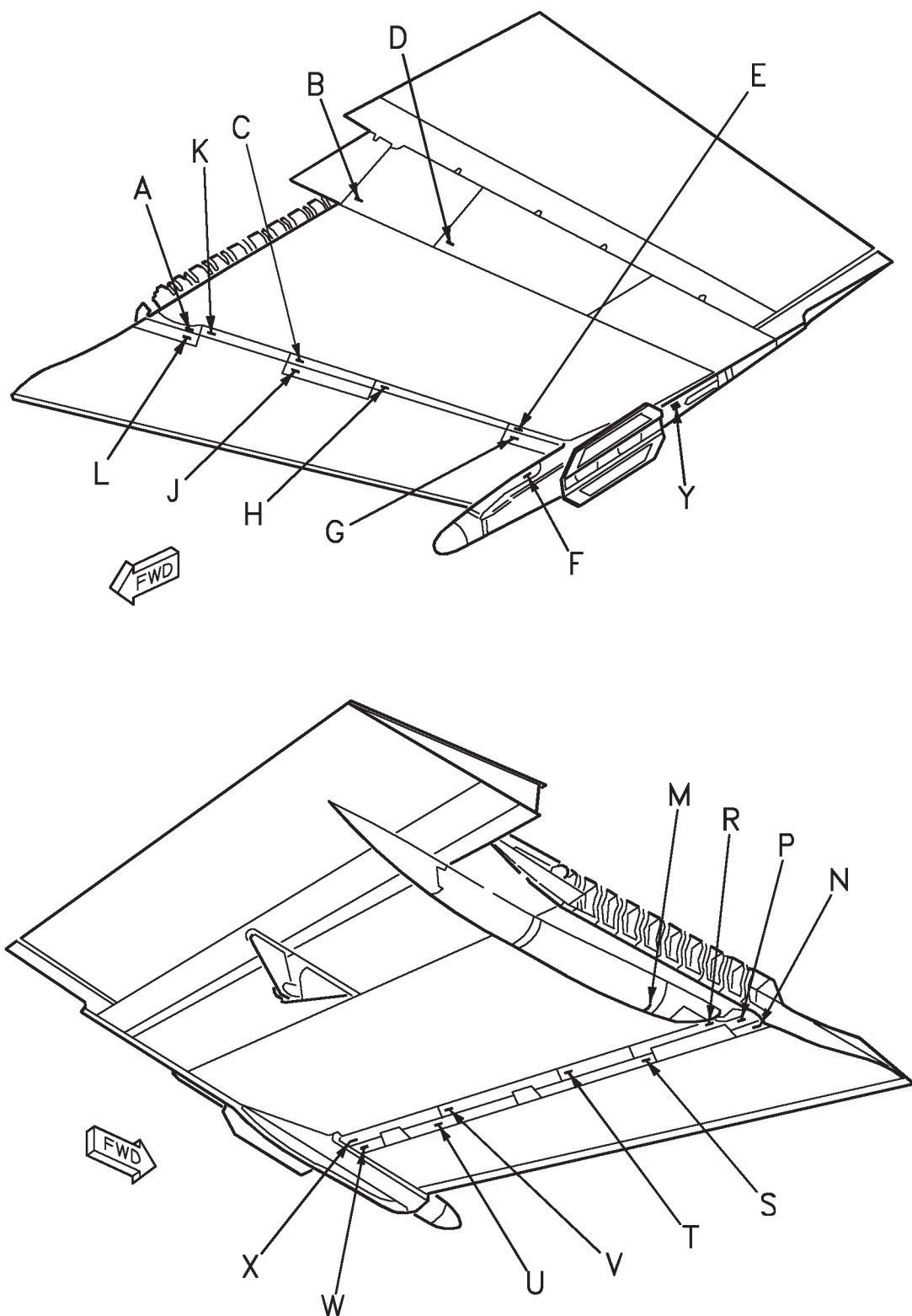
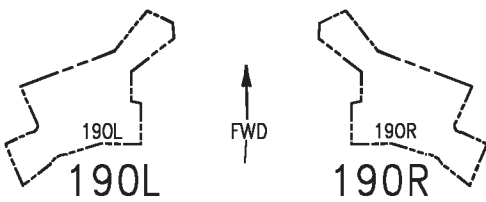


Figure 3. Outer Wing Door Markings (Sheet 1)



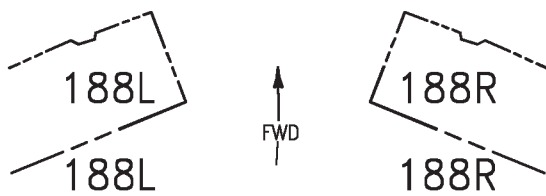
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74A950190



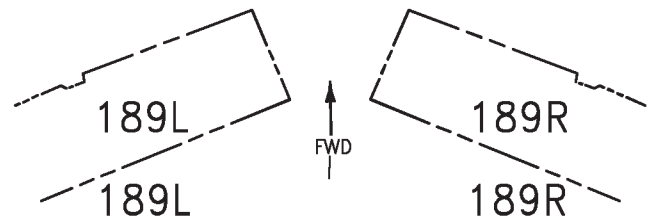
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74A950083



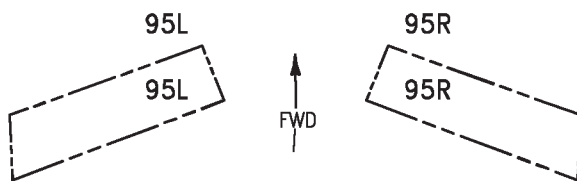
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74A950188



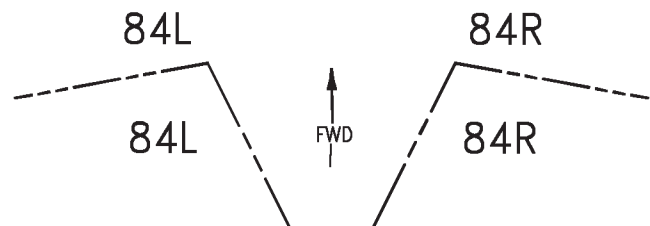
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74A950189



G

74A950095



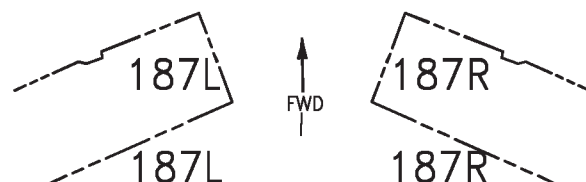
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74A950084



F

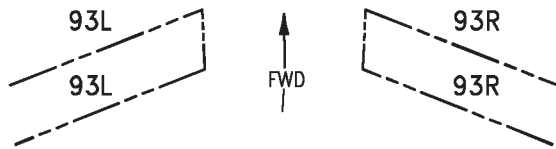
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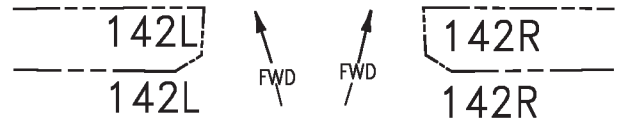
E

74A950187

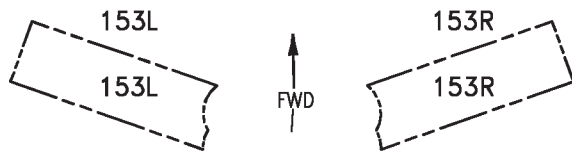
Figure 3. Outer Wing Door Markings (Sheet 2)



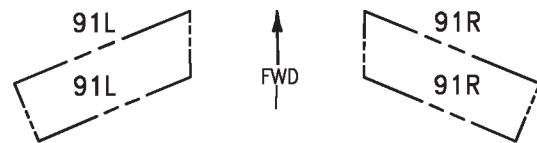
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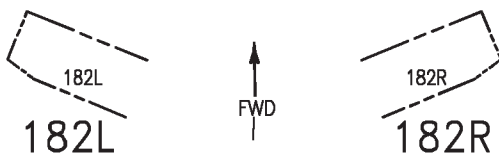
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74A950142



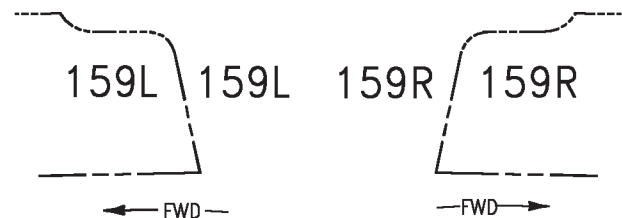
S
74A950153



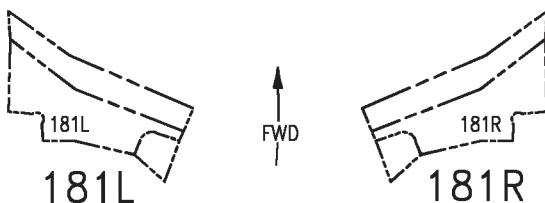
L
74A950091



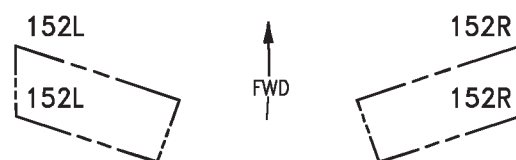
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74A950182



M
74A950159

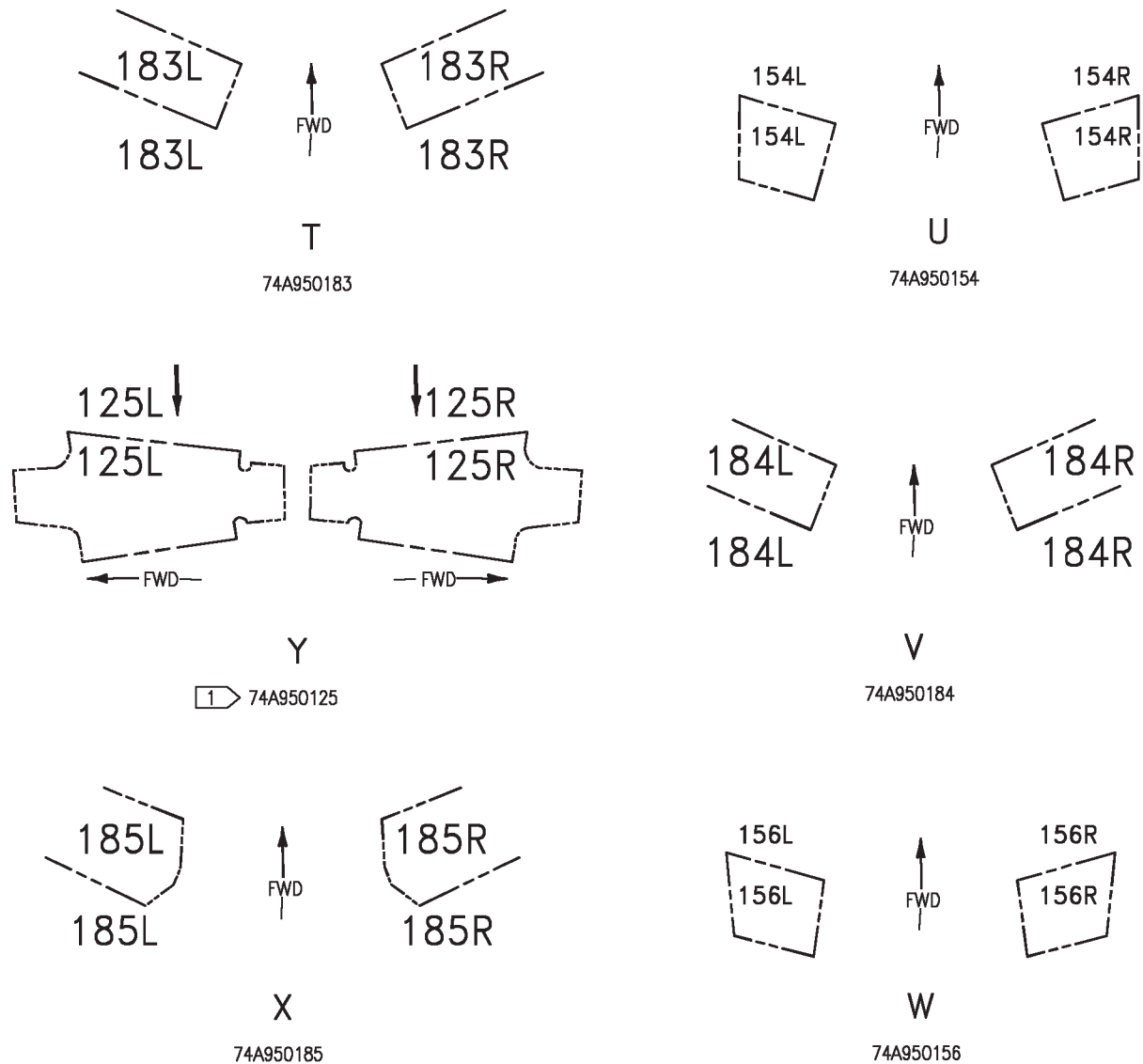


P
74A950181



N
74A950152

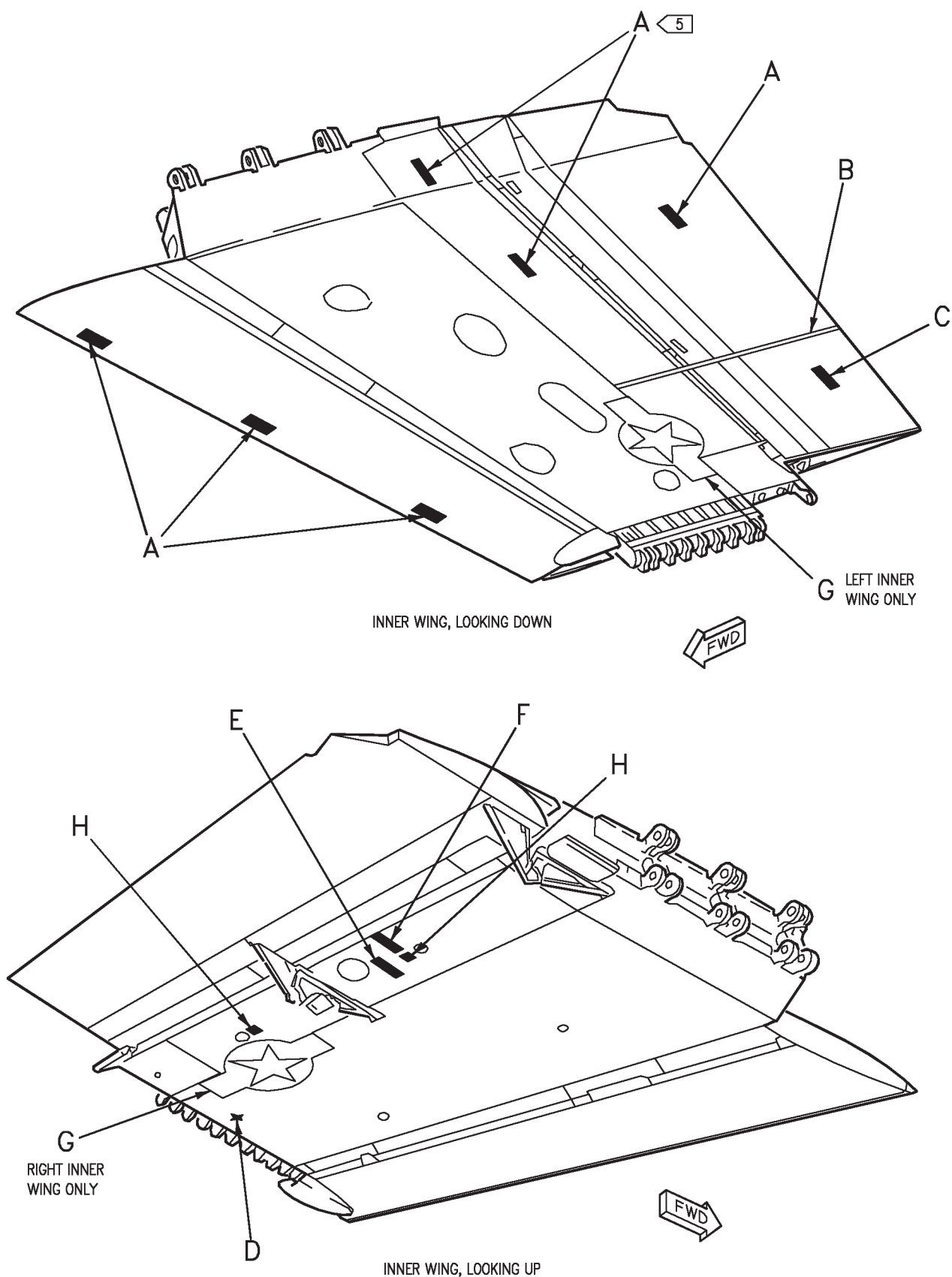
Figure 3. Outer Wing Door Markings (Sheet 3)



LEGEND

1 162826 AND UP

Figure 3. Outer Wing Door Markings (Sheet 4)



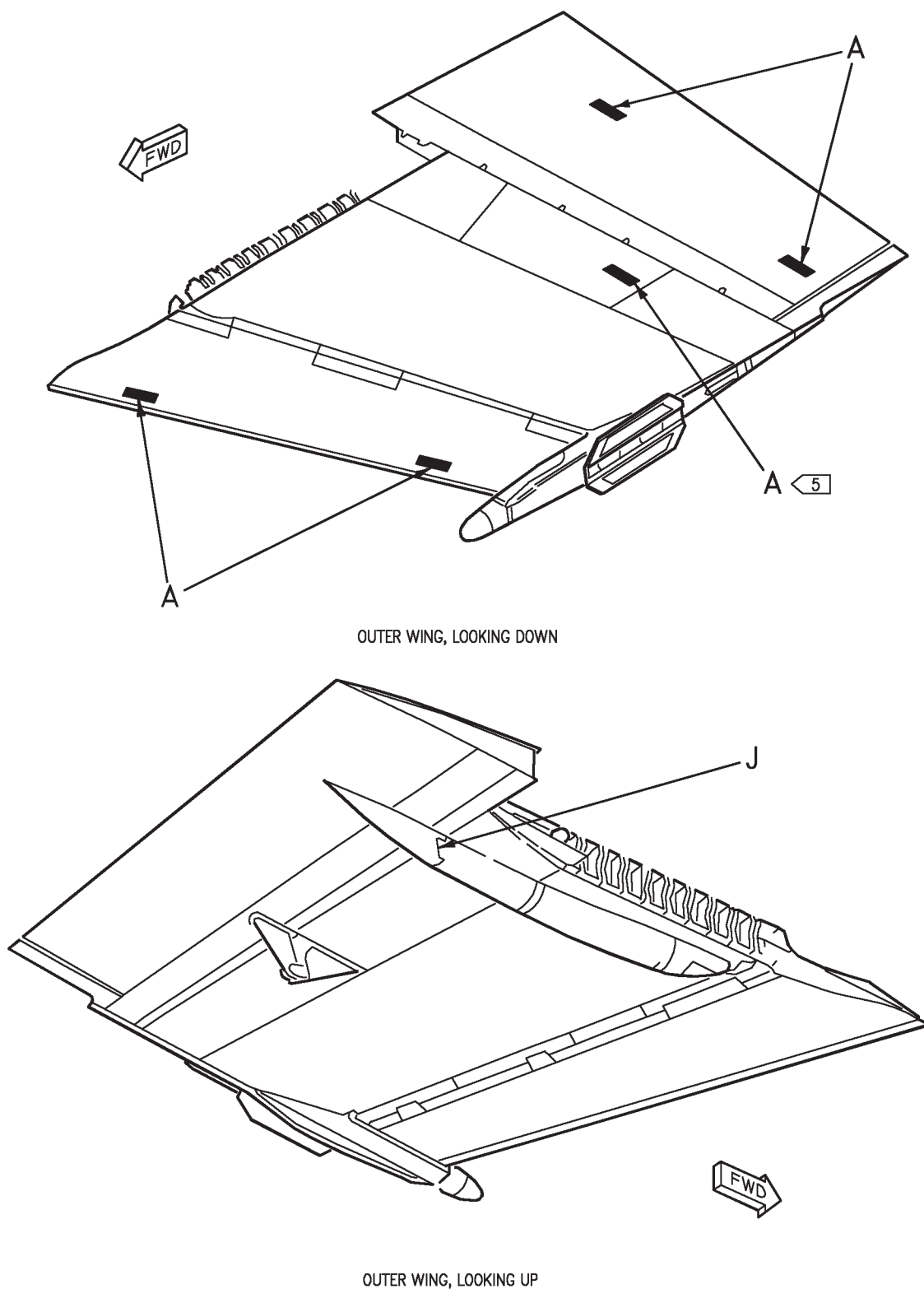
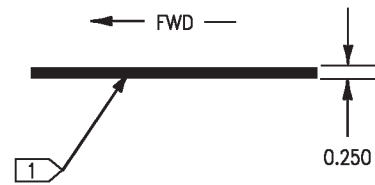


Figure 4. Instructional Markings and Insignia (Sheet 2)

NO STEP

A

74A950304



B

TO INSTALL COVER
ALIGN ARROWS
PUSH AND ROTATE

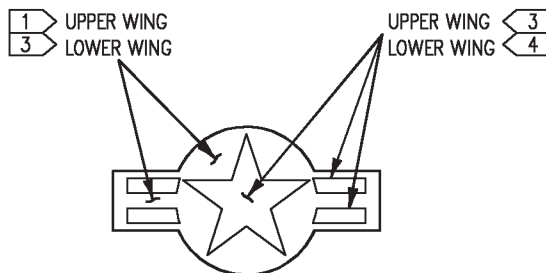
H

74A950374

STEP WITH FLAP
LOCK INSTALLED

C

74A950370



G

6 2 74A950379-2001



D

74A950357



F

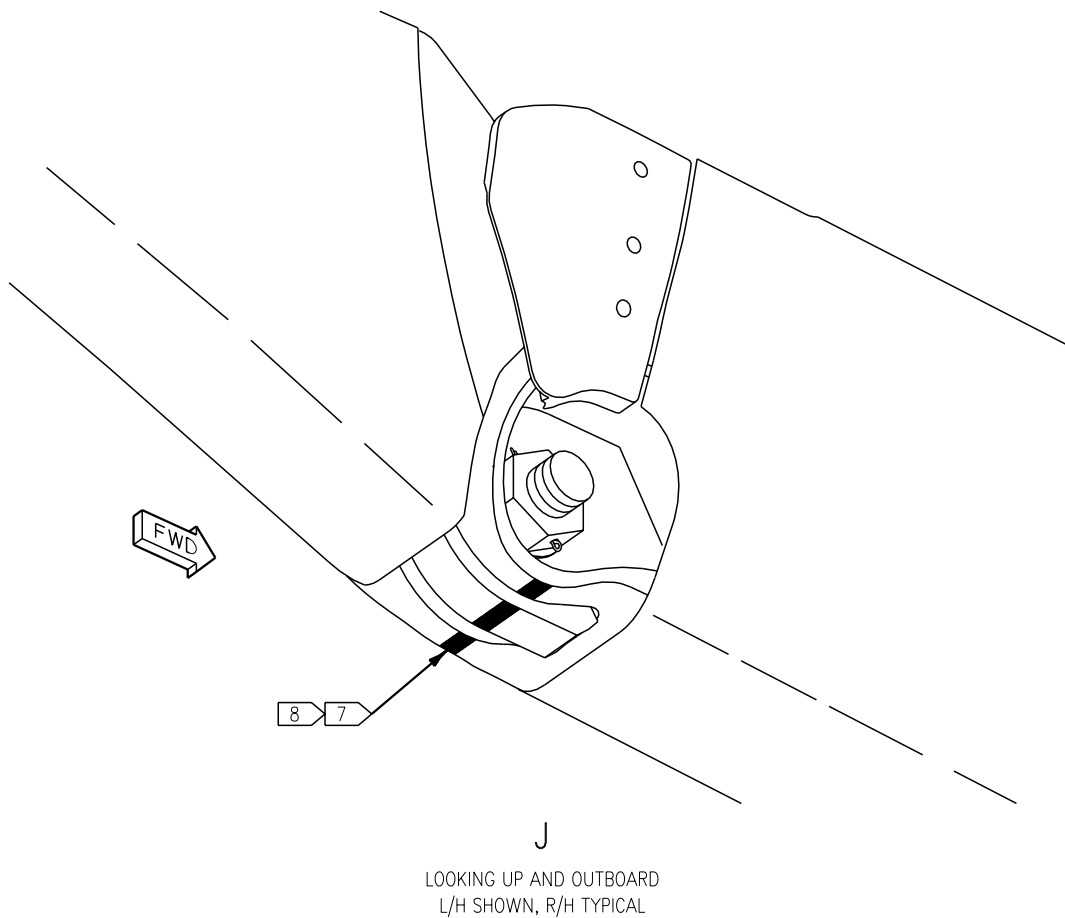
74A950335



E

74A950332

Figure 4. Instructional Markings and Insignia (Sheet 3)



LEGEND

- 1 GRAY, FED-STD-595 COLOR NO. 35237, ALIPHATIC POLYURETHANE ENAMEL, 161353 THRU 161929; GRAY, FED-STD-595 COLOR NO. 36375 ALIPHATIC POLYURETHANE ENAMEL, 161930 AND UP.
- 2 INSIGNIA SPRAY APPLICATION, ALIPHATIC POLYURETHANE ENAMEL.
- 3 GRAY, FED-STD-595 COLOR NO. 36375, ALIPHATIC POLYURETHANE ENAMEL, 161353 THRU 161929; GRAY, FED-STD-595 COLOR NO. 36320 ALIPHATIC POLYURETHANE ENAMEL, 161930 AND UP.
- 4 GRAY, FED-STD-595 COLOR NO. 36495, ALIPHATIC POLYURETHANE ENAMEL, 161353 THRU 161925; GRAY, FED-STD-595 COLOR NO. 36375 ALIPHATIC POLYURETHANE ENAMEL, 161926 AND UP.
- 5 161353 THRU 162893.
- 6 164645 AND UP.
- 7 161353 THRU 164946, 164948, 164950 AFTER F/A-18 AFC 150, WITH AILERON IN NEUTRAL FAIRED POSITION, PAINT 0.25 INCH WIDE ALIGNMENT STRIPE ON INBOARD AILERON HINGE WITH TWO COATS OF GRAY, FED-STD-595 COLOR NO. 36081.
- 8 164947, 164949, 164951 AND UP, WITH AILERON IN NEUTRAL FAIRED POSITION, PAINT 0.50 INCH WIDE ALIGNMENT STRIPE ON INBOARD AILERON HINGE WITH TWO COATS OF GRAY, FED-STD-595 COLOR NO. 36320.

18AC-SRM-50-(63-4)39-CATI

Figure 4. Instructional Markings and Insignia (Sheet 4)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FORWARD CENTER FUSELAGE CORROSION PRONE AREAS

Reference Material

| | |
|--|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning..... | WP006 00 |
| Stripping..... | WP007 00 |
| Chemical Treatment..... | WP008 00 |
| Forward Center Fuselage Finish System and Markings | WP030 00 |
| Structure Repair, Center Fuselage | A1-F18AC-SRM-230 |
| Center Fuselage Structure Group Index | WP001 01 |
| Structure Repair, Center Fuselage | A1-F18AE-SRM-700 |
| Structure Group Index..... | WP001 01 |

Alphabetical Index

| Subject | Page No. |
|--|----------|
| Description | 2 |
| Chemical Treatment | 2 |
| Classification of Critical Item/Areas | 2 |
| Cleaning..... | 2 |
| Corrosion Damage Evaluation and Limits | 2 |
| Corrosion Damage Repair | 2 |
| Corrosion Inspection..... | 2 |
| Corrosion Prone Areas..... | 2 |
| Corrosion Removal..... | 2 |
| Finish System and Markings..... | 2 |
| Stripping..... | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The forward center fuselage, extending from fuselage station Y383.000 to fuselage station Y453.000, including engine air inlets. Structure and skins are aluminum, graphite epoxy and titanium. Finish system is primer and polyurethane coatings.

3. **CORROSION PRONE AREAS.** See figures 1, 2, 3 and 4.

- a. Dissimilar metal contact.
- b. Water intrusion/entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Finish system/protection system damage.

4. **CORROSION INSPECTION.** (WP005 00).

- a. Mold line and internal structural surfaces.

(1) The sealant system for cuts, chafing, tears, or missing sections.

(2) The finish system for damage/deterioration.

(3) Doors, covers, skins and internal structure for pitting and surface corrosion.

(4) Door sills for cleanliness and corrosion.

(5) Hinge halves for wear or damage.

5. **CLEANING.** (WP006 00).

6. **STRIPPING.** (WP007 00).

7. **CORROSION REMOVAL.** (WP005 00).

8. **CHEMICAL TREATMENT.** (WP008 00).

9. **FINISH SYSTEM AND MARKINGS.** (WP030 00).

10. **CLASSIFICATION OF CRITICAL ITEMS/AREAS.** (A1-F18AC-SRM-230, WP001 01 or A1-F18AE-SRM-700, WP001 01).

11. **CORROSION DAMAGE EVALUATION AND LIMITS.** (A1-F18AC-SRM-230, WP001 01 or A1-F18AE-SRM-700, WP001 01).

12. **CORROSION DAMAGE REPAIR.** (WP005 00 and A1-F18AC-SRM-230, WP001 01 or A1-F18AE-SRM-700, WP001 01).

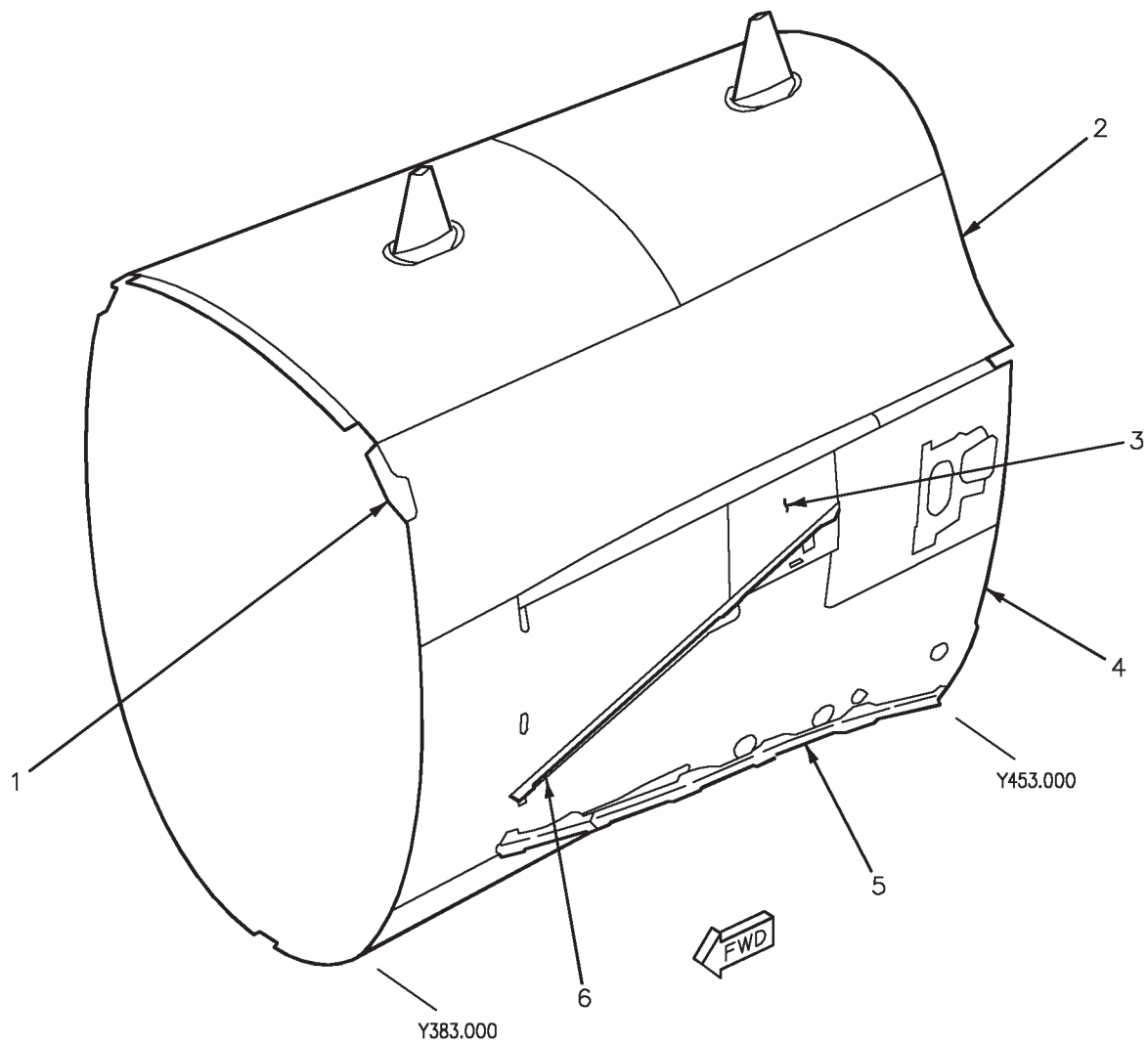


Figure 1. Skins, Doors and Covers (Sheet 1)

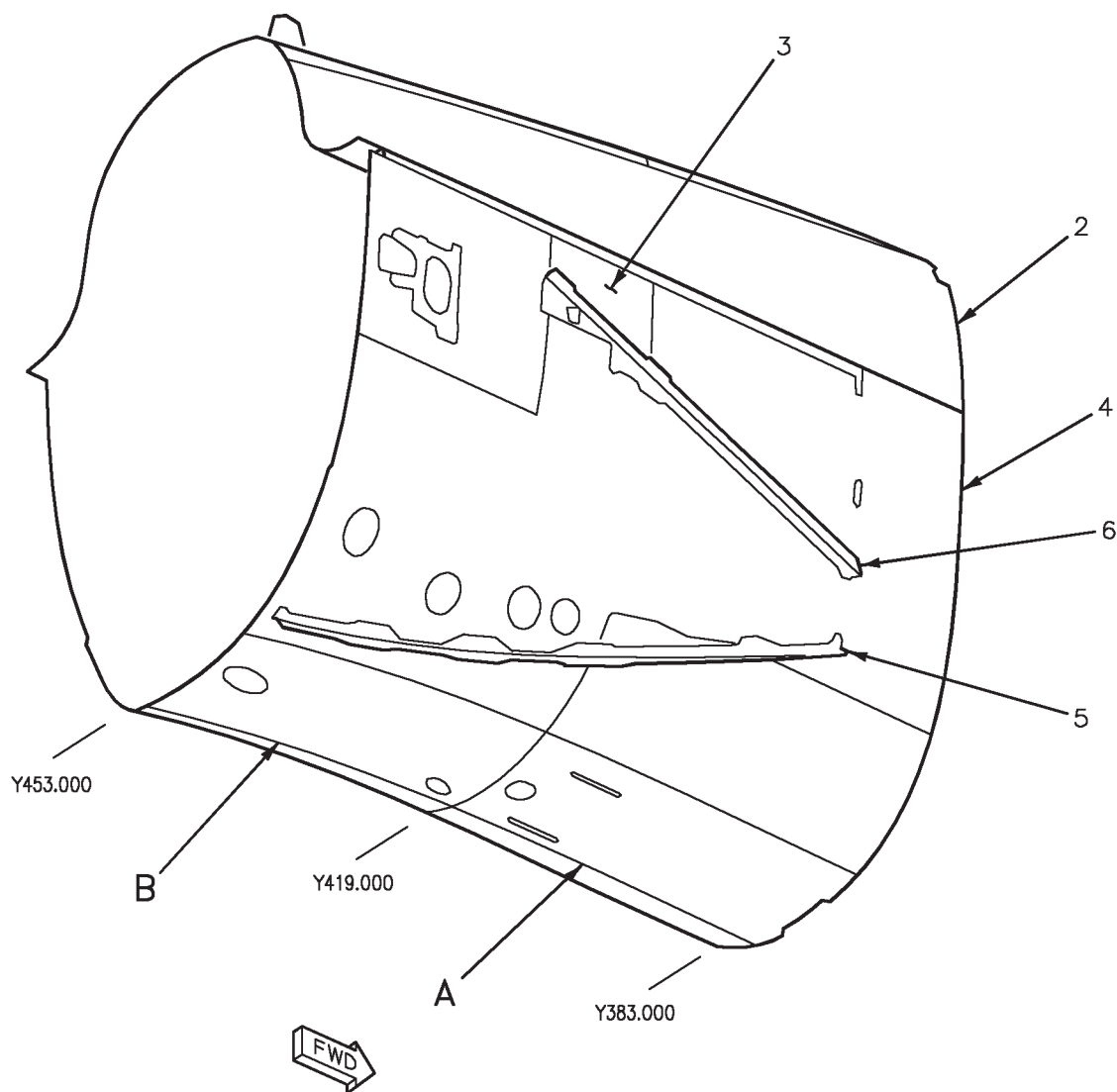


Figure 1. Skins, Doors and Covers (Sheet 2)

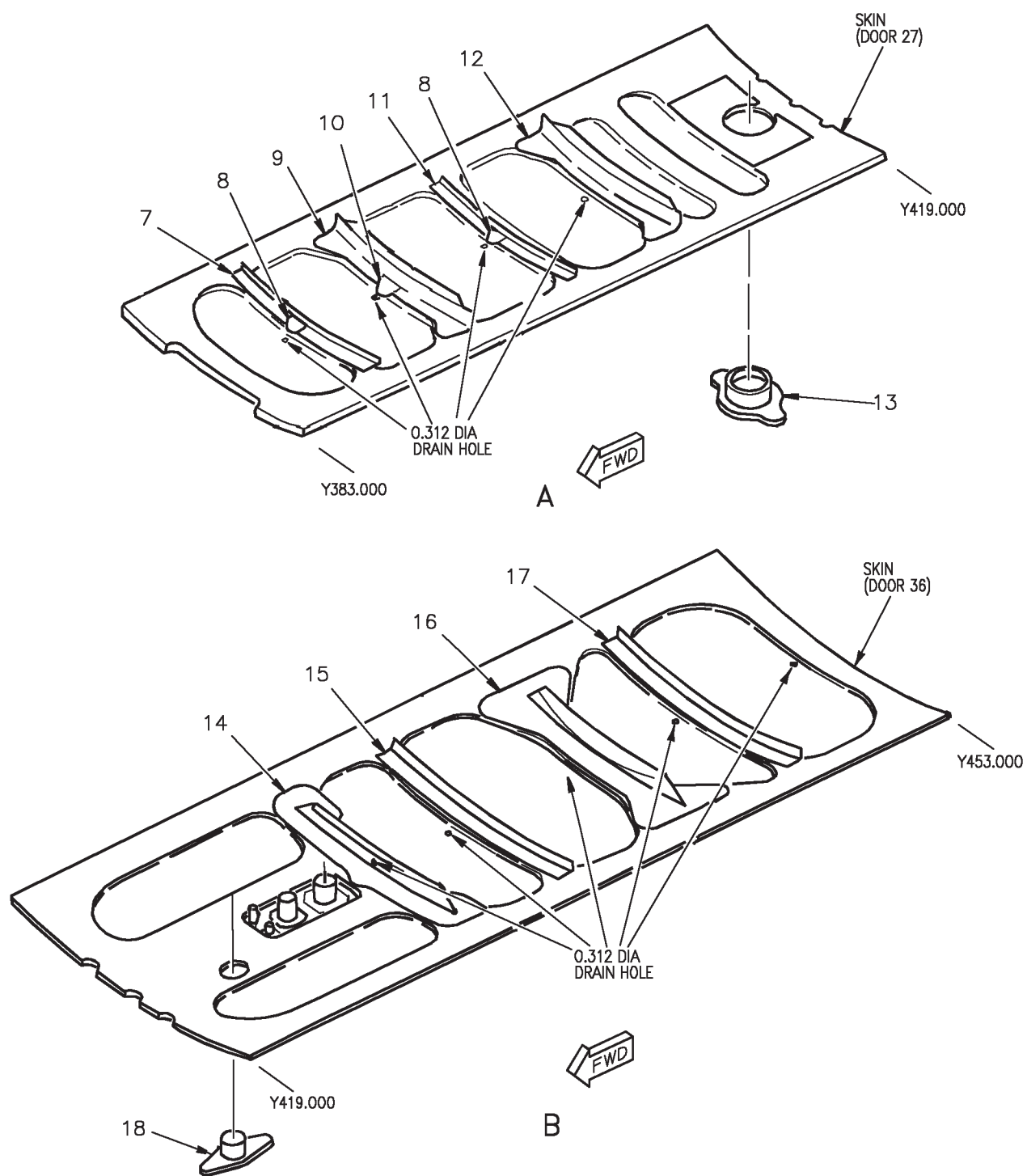


Figure 1. Skins, Doors and Covers (Sheet 3)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 1 | Cover (Door 58) | 7075-T76 Al Aly, Sheet | Surface |
| 2 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 3 | Cover (Door 114) | 7075-T76 Alclad, Sheet | Surface |
| 4 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 5 | Longeron | 7075-T76 Al Aly, Plate | Pitting |
| 6 | Longeron | 7075-T62 Al Aly, Sheet | Surface |
| 7 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 8 | Guard | 7075-T6 Al Aly, Sheet | Surface |
| 9 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |
| 10 | Guard | 7075-T6 Al Aly, Sheet | Surface |
| 11 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 12 | Stiffener | 7075-T76 Al Aly, Sheet | Surface |
| 13 | Closure (Door 171) | 7075-T7351 Al Aly, Plate | Pitting |
| 14 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 15 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 16 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 17 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 18 | Closure (Door 172) | 7075-T7351 Al Aly, Plate | Pitting |

Figure 1. Skins, Doors, and Covers (Sheet 4)

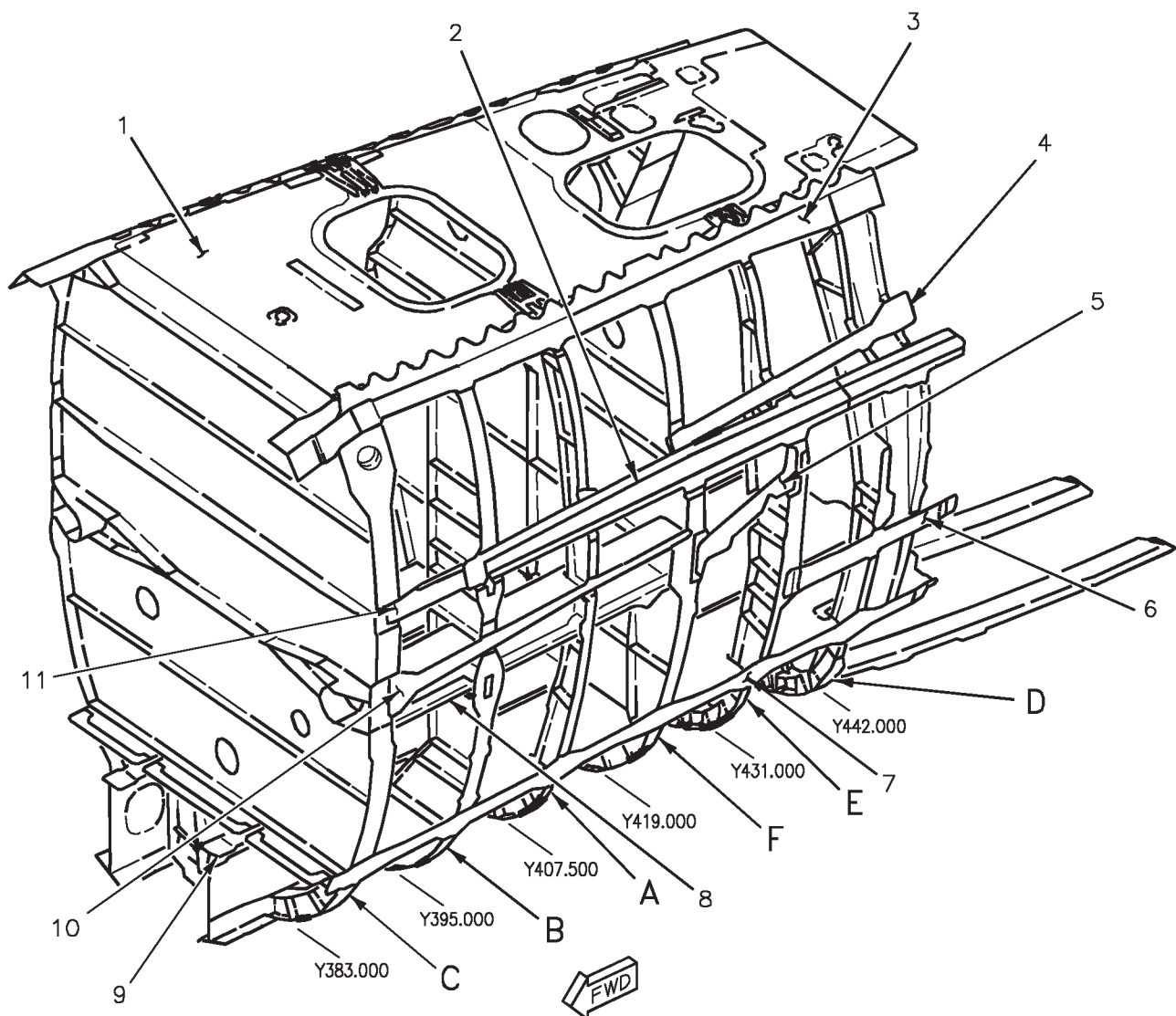


Figure 2. Bulkheads, Formers, Longerons and Stringers (Sheet 1)

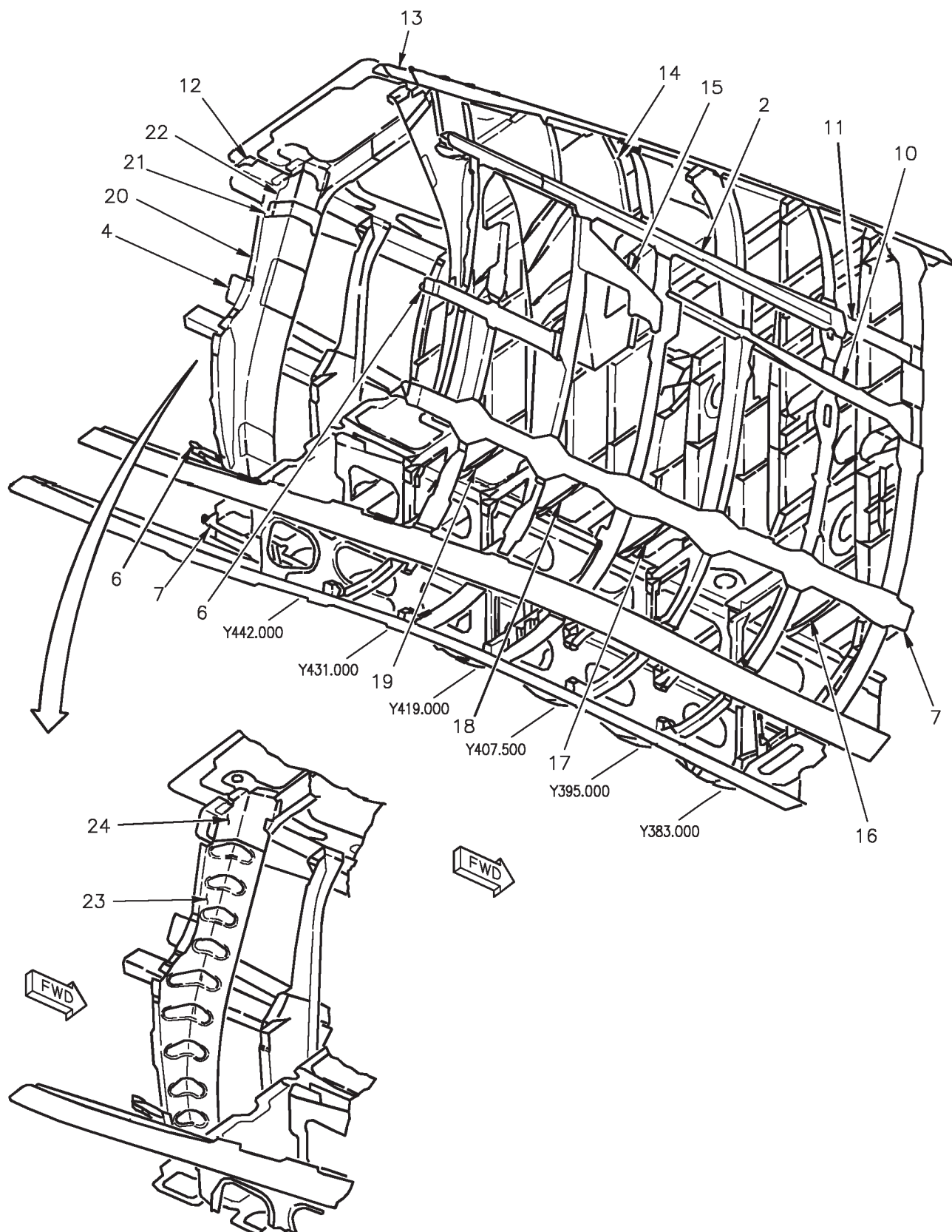


Figure 2. Bulkheads, Formers, Longerons and Stringers (Sheet 2)

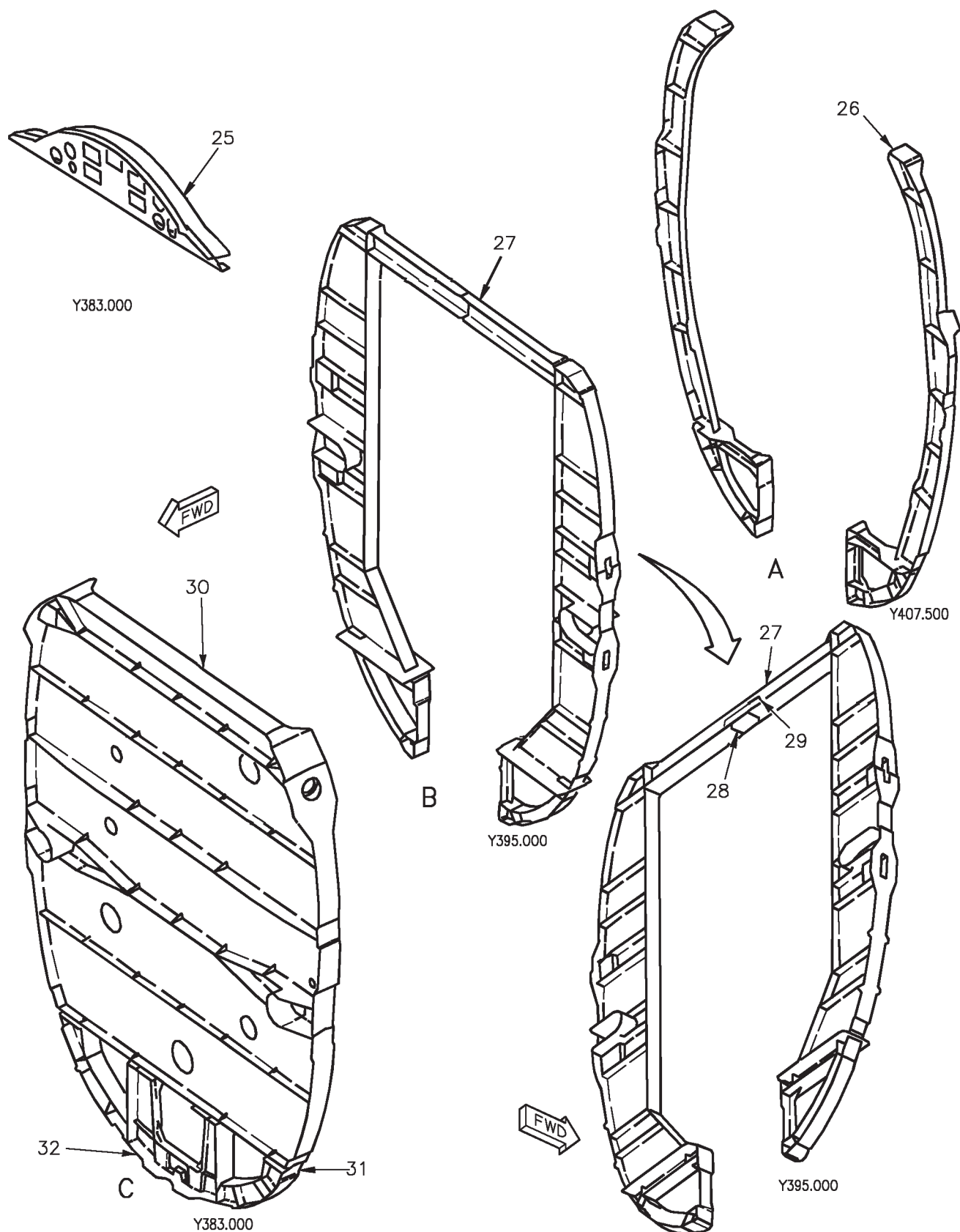


Figure 2. Bulkheads, Formers, Longerons and Stringers (Sheet 3)

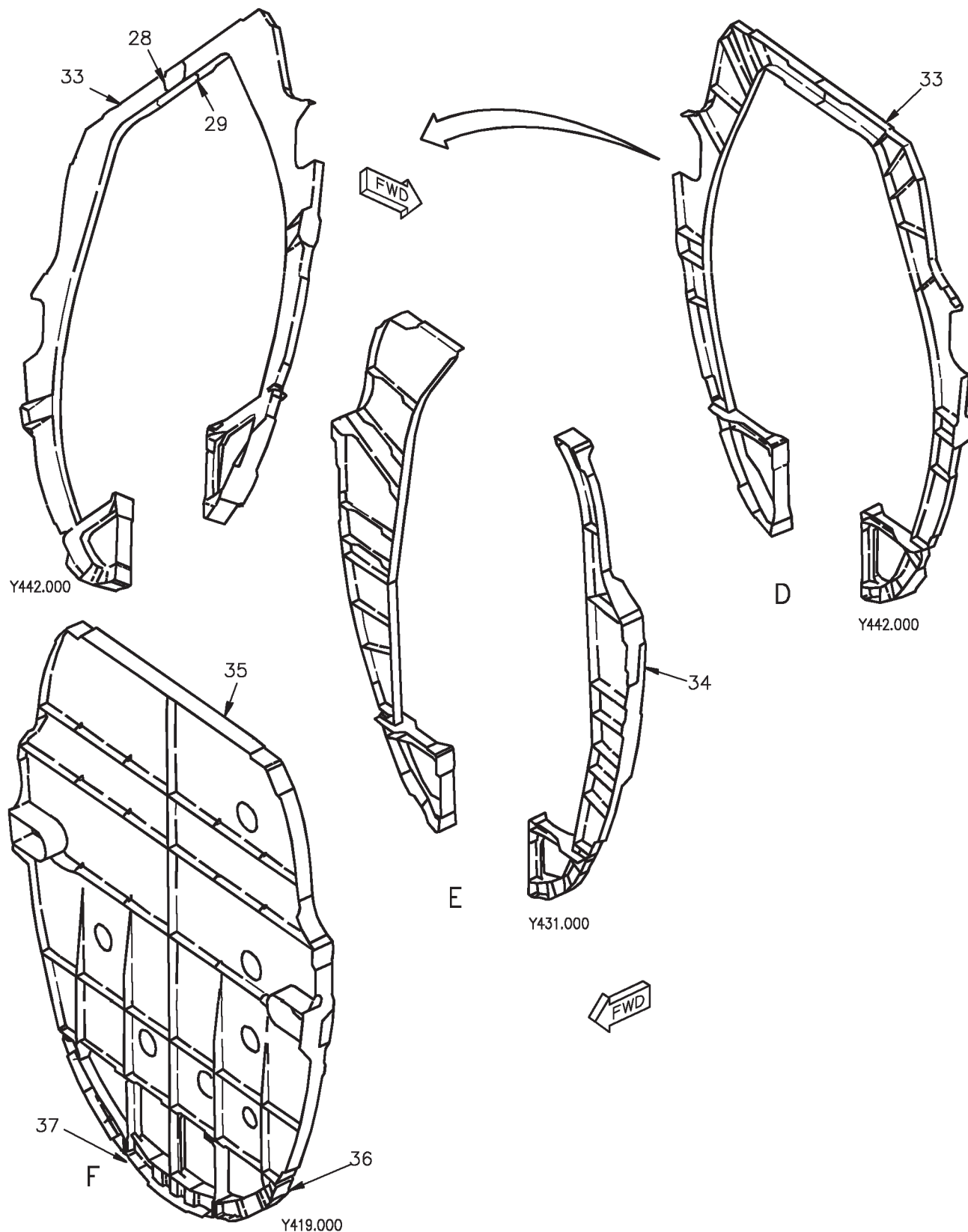


Figure 2. Bulkheads, Formers, Longerons and Stringers (Sheet 4)






| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|--|-------------------------------|----------------|
| 1 | Floor Segment | 7050-T73651 Al Aly, Plate | Pitting |
| 2 | Longeron | 7075-T76 Al Aly, Sheet | Surface |
| 3 | Longeron | 7149-T73511 Al Aly, Bar | Pitting |
| 4 | Longeron | 7075-T76 Al Aly, Extrusion | Pitting |
| 5 | Plate | 7075-T6 Al Aly, Sheet | Surface |
| 6 | Plate | 7075-T76 Al Aly, Extrusion | Pitting |
| 7 | Longeron | 7075-T73 Al Aly, Extrusion | Pitting |
| 8 | Tunnel Assy | 7075-T62 Al Aly, Sheet | Surface |
| 9 | Support | 7075-T73511 Al Aly, Extrusion | Pitting |
| 10 | Longeron | 7075-T73 Al Aly, Extrusion | Pitting |
| 11 | Longeron | 7075-T7351 Al Aly, Bar | Pitting |
| 12 | Plate | 7149-T73511 Al Aly, Plate | Pitting |
| 13 | Plate | 7149-T73511 Al Aly, Plate | Pitting |
| 14 | Tunnel | 7075-T62 Al Aly, Sheet | Surface |
| 15 | Plate | 7075-T6 Al Aly, Plate | Pitting |
| 16 | Intercostal | 7075-T76511 Al Aly, Extrusion | Pitting |
| 17 | Intercostal | 7075-T76511 Al Aly, Extrusion | Pitting |
| 18 | Intercostal | 7075-T76511 Al Aly, Extrusion | Pitting |
| 19 | Intercostal | 7075-T76511 Al Aly, Extrusion | Pitting |
| 20 |  Panel | 7075-T62 Al Aly, Sheet | Surface |
| 21 |  Splice Angle | 7075-T62 Al Aly, Sheet | Surface |
| 22 |  Panel | 7075-T62 Al Aly, Sheet | Surface |
| 23 |  Tunnel Assy | 2024-T72 Al Aly, Sheet | Pitting |
| 24 |  Panel | 2024-T72 Al Aly, Sheet | Surface |
| 25 | Former | 7075-T7351 Al Aly, Plate | Pitting |

Figure 2. Bulkheads, Formers, Longérons, and Stringers (Sheet 5)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---|----------------------|----------------------------|------------------|
| 26 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 27 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 28 | Plate | 7075-T76 Al Aly, Extrusion | Pitting |
| 29 | Angle | 7075-T76 Al Aly, Sheet | Surface |
| 30 | Bulkhead | 7050-T73651 Al Aly, Plate | Pitting |
| 31 | Former | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 32 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 33 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 34 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 35 | Bulkhead | 7050-T73651 Al Aly, Plate | Pitting |
| 36 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 37 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| <p style="text-align: center;">LEGEND</p> <p> 1 ➤ 161353 THRU 161741. 2 ➤ 161742 AND UP. </p> | | | |

Figure 2. Bulkheads, Formers, Longerons, and Stringers (Sheet 6)

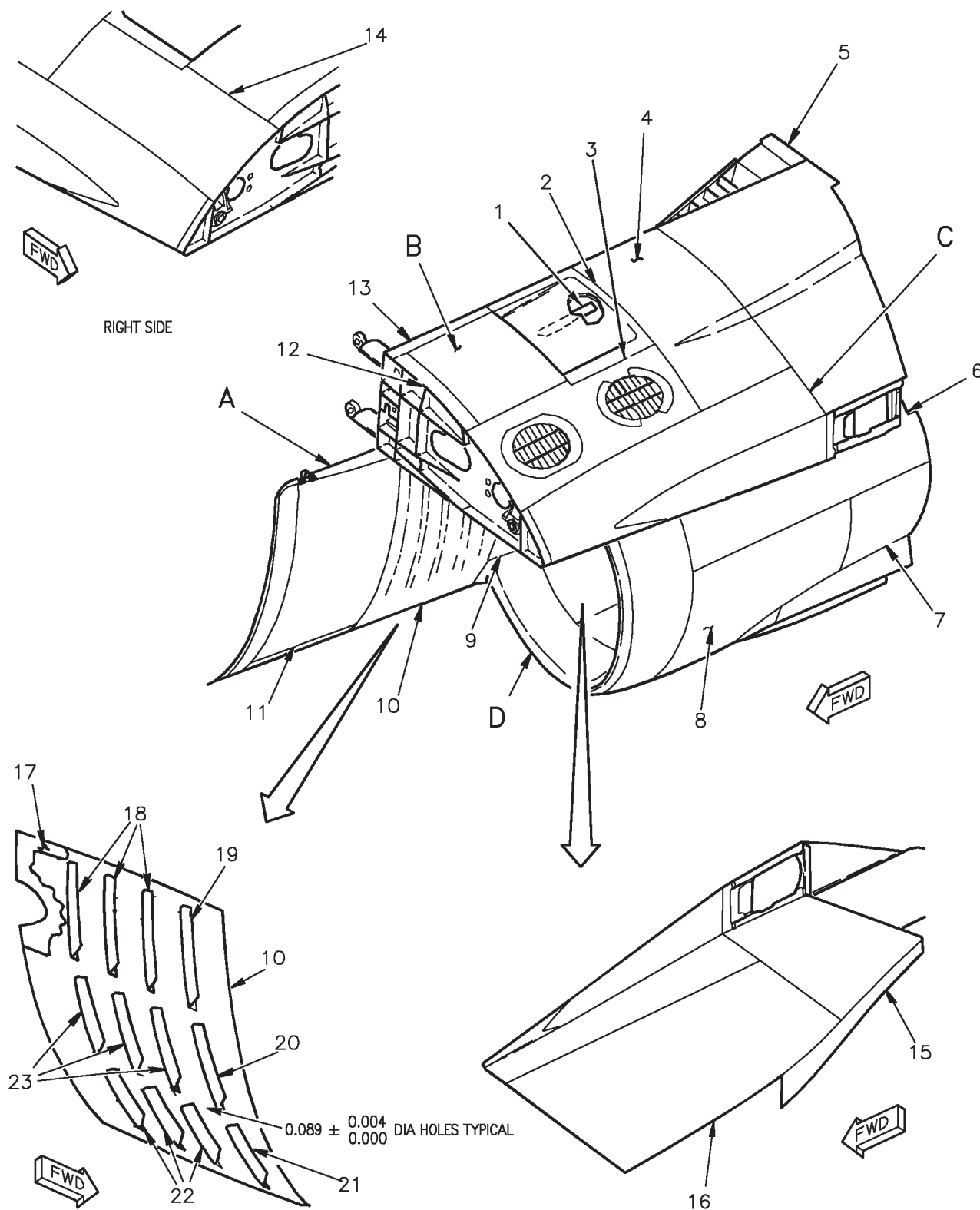


Figure 3. Air Inlet Skins, Doors and Covers (Sheet 1)

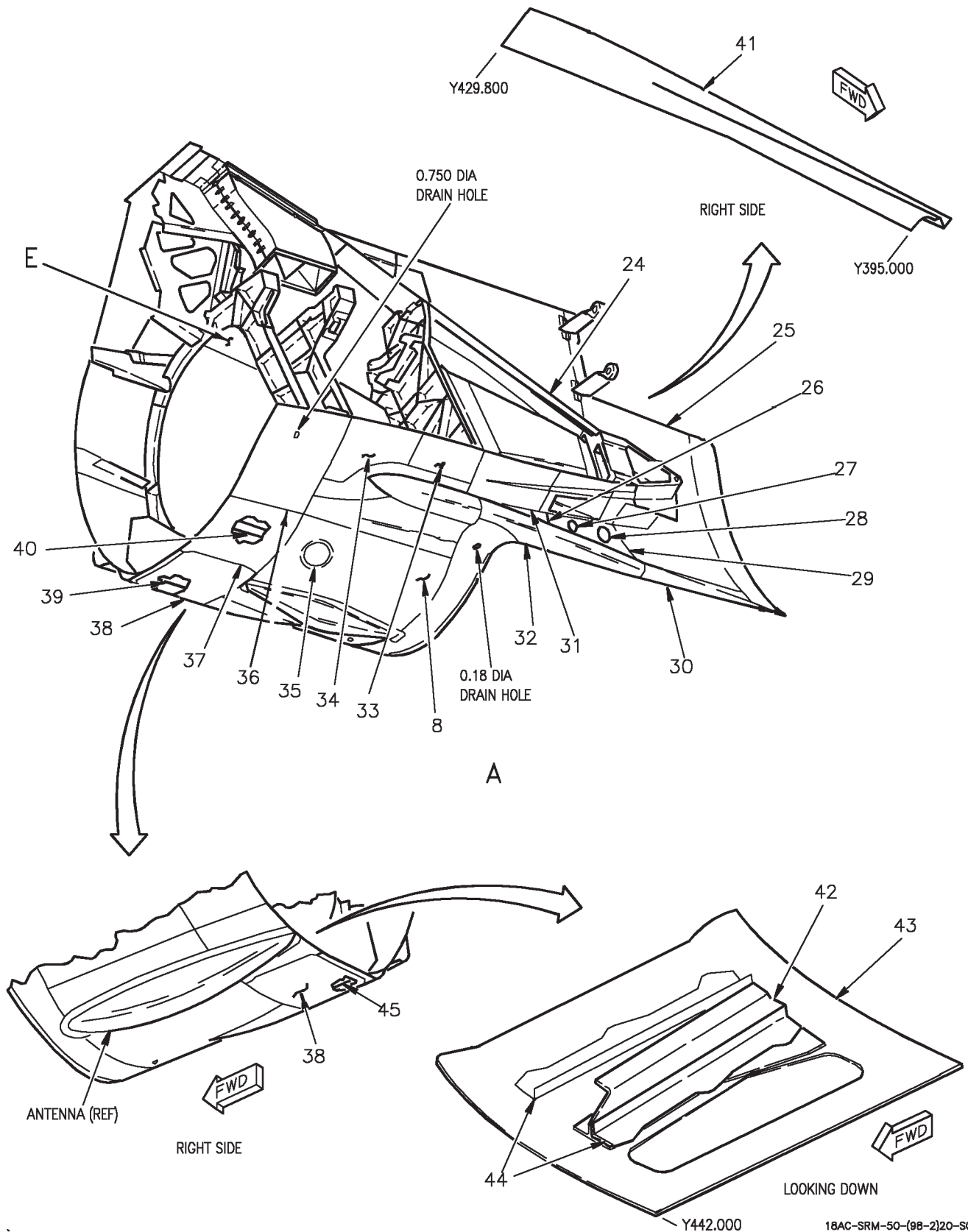


Figure 3. Air Inlet Skins, Doors and Covers (Sheet 2)

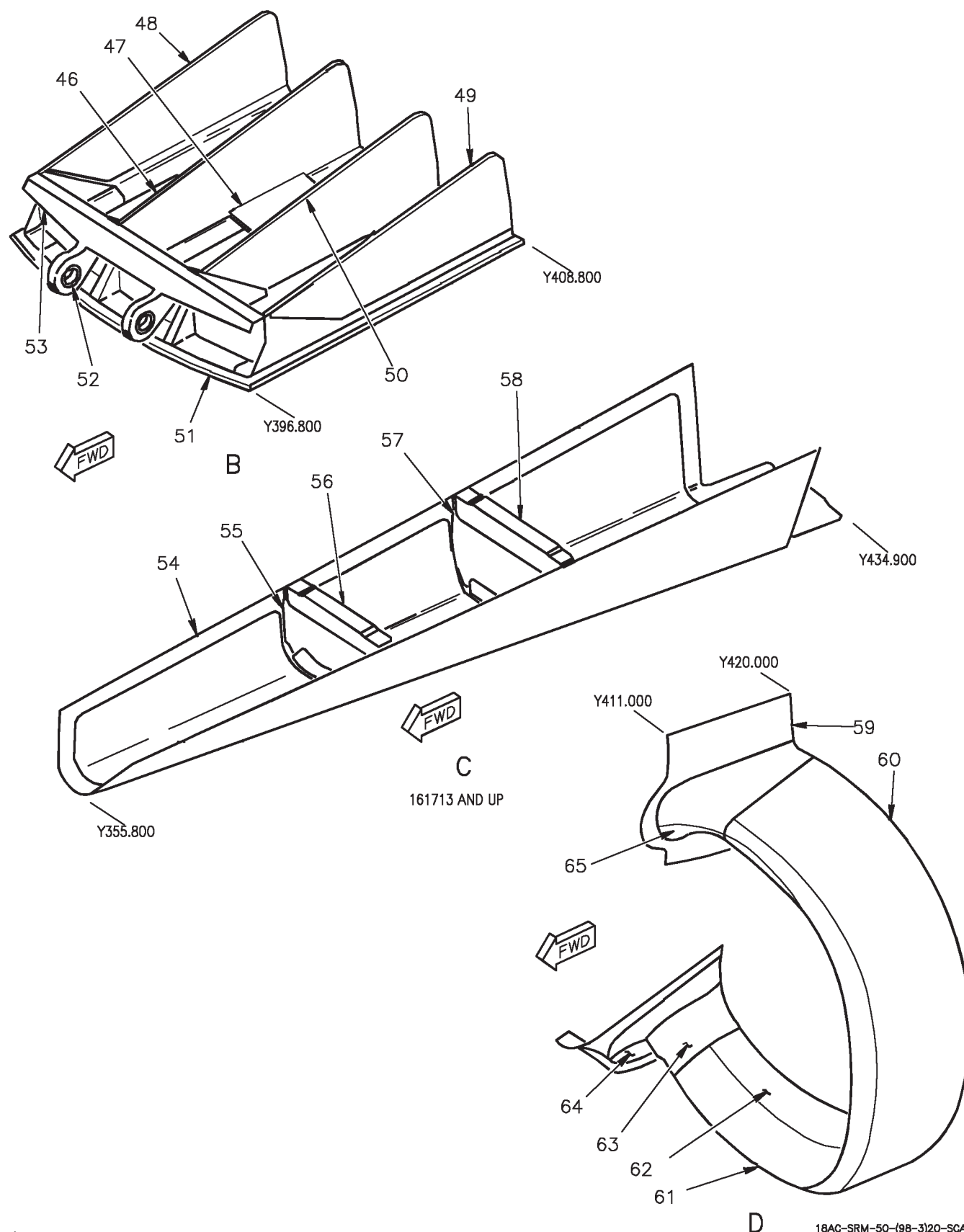


Figure 3. Air Inlet Skins, Doors and Covers (Sheet 3)

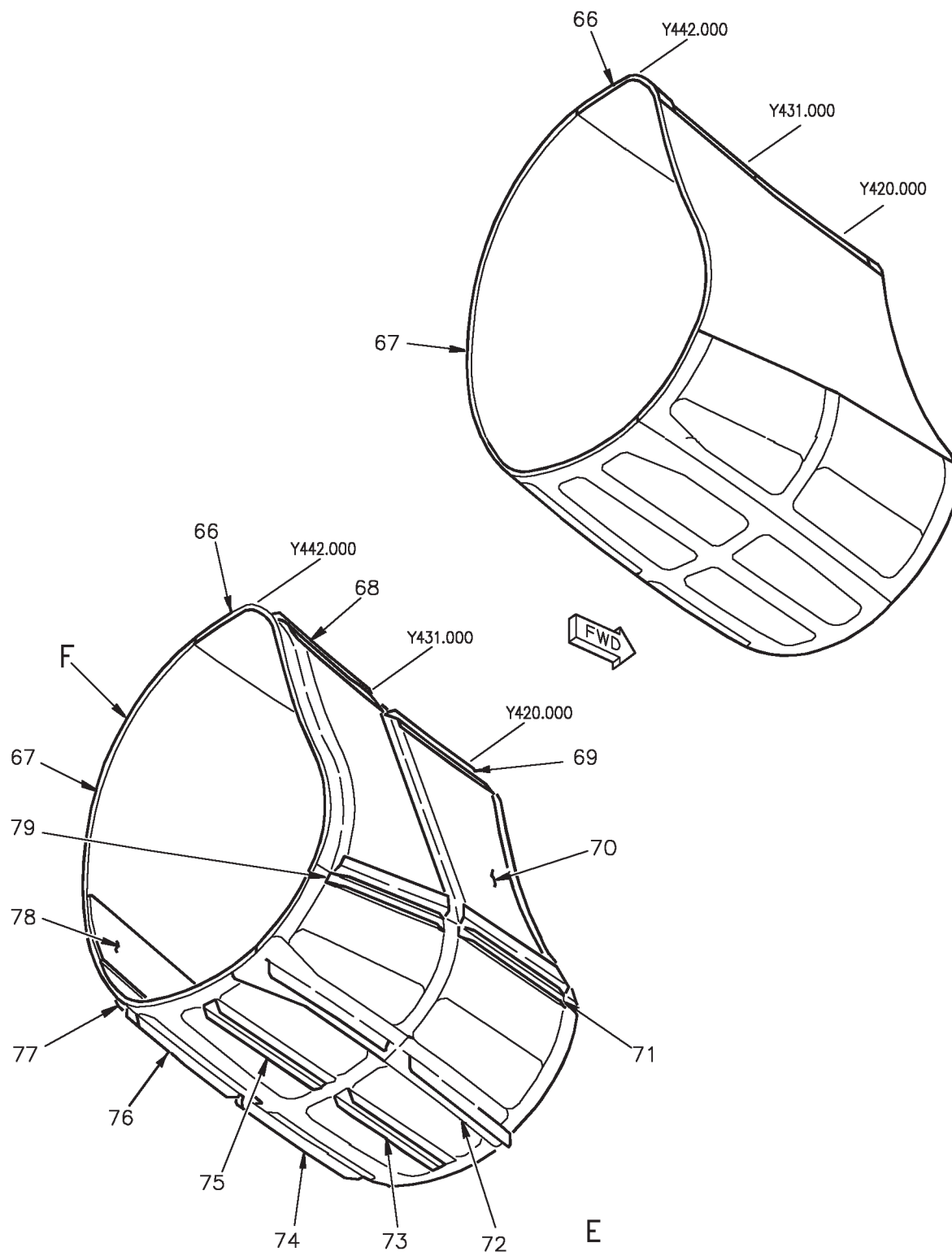


Figure 3. Air Inlet Skins, Doors and Covers (Sheet 4)

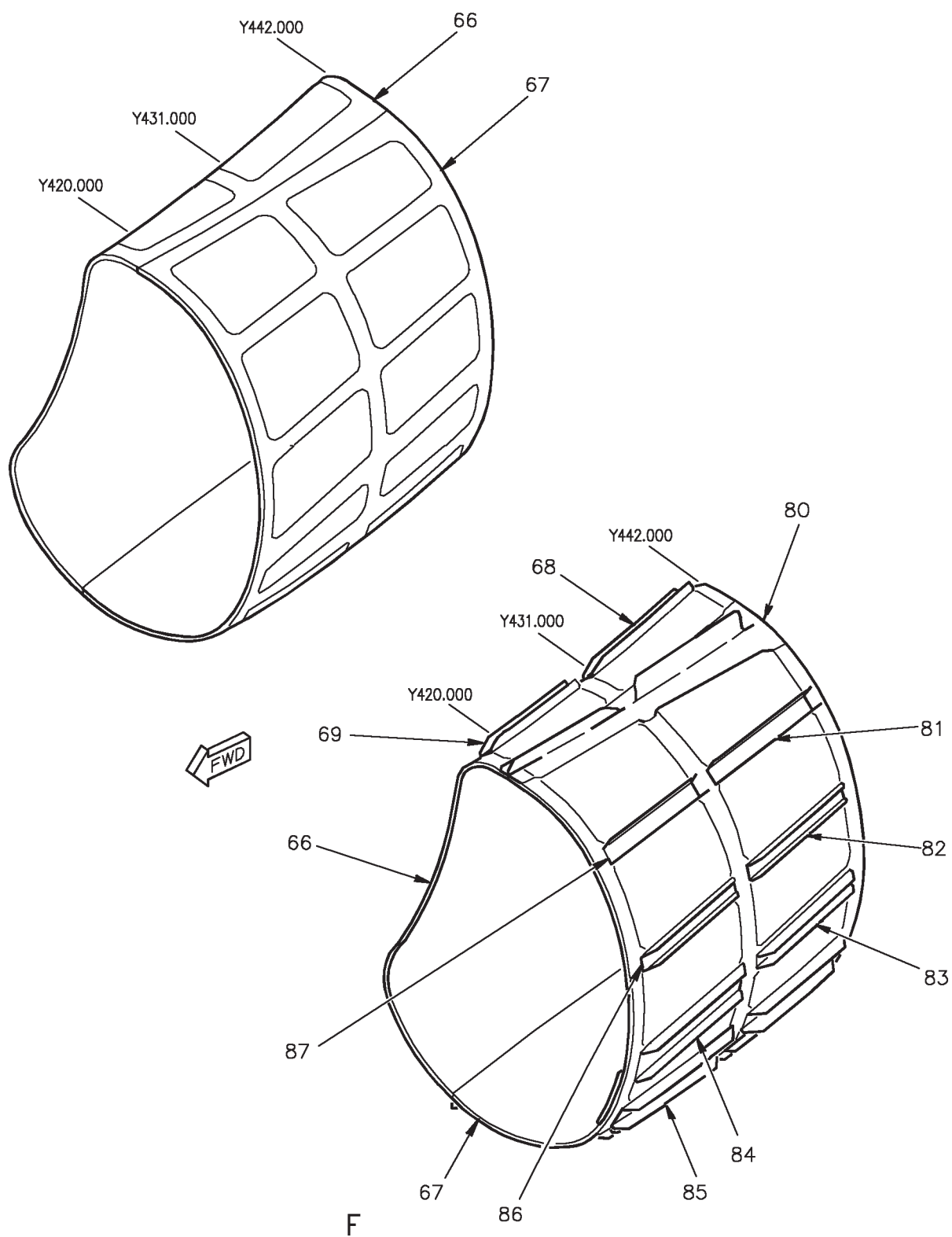


Figure 3. Air Inlet Skins, Doors and Covers (Sheet 5)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------------|----------------|
| 1 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 2 | Ramp | 7075-T76 Alclad, Sheet | Surface |
| 3 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 4 | Cover (Door 32) | 7075-T76 Al Aly, Sheet | Surface |
| 5 | Support Assy | 2024-T851 Al Aly, Plate | Pitting |
| 6 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 7 | Cover | 7075-T76 Alclad, Sheet | Surface |
| 8 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 9 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 10 | Skin | 2024-T3511 Al Aly, Extrusion | Pitting |
| 11 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 12 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 13 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 14 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 15 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 16 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 17 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 18 | Bracket | 7075-T73 Al Aly, Extrusion | Surface |
| 19 | Bracket | 7075-T73 Al Aly, Extrusion | Surface |
| 20 | Bracket | 7075-T73 Al Aly, Extrusion | Surface |
| 21 | Bracket | 7075-T73 Al Aly, Extrusion | Surface |
| 22 | Bracket | 7075-T73 Al Aly, Extrusion | Surface |
| 23 | Bracket | 7075-T73 Al Aly, Extrusion | Surface |
| 24 | Cover (Door 186) | 7075-T76 Alclad, Sheet | Surface |
| 25 | Skin | 7075-T6 Alclad, Sheet | Surface |

Figure 3. Air Inlet Skins, Doors and Covers (Sheet 6)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 26 | Door 133 | 7075-T76 Alclad, Sheet | Surface |
| 27 | Door 132 | 7075-T76 Alclad, Sheet | Surface |
| 28 | Door 198 | 7075-T76 Alclad, Sheet | Surface |
| 29 | Panel | 7075-T76 Alclad, Sheet | Surface |
| 30 | Cap | 7075-T62 Al Aly, Sheet | Surface |
| 31 | Cover (Door 28) | 7075-T76 Alclad, Sheet | Surface |
| 32 | Fairing | 7075-T62 Alclad, Sheet | Surface |
| 33 | Cover (Door 117) | 7075-T76 Alclad, Sheet | Surface |
| 34 | Cover (Door 118) | 7075-T76 Alclad, Sheet | Surface |
| 35 | Cover (Door 128) | 6061-T6 Al Aly, Sheet | Surface |
| 36 | Cover (Door 129) | 7075-T76 Alclad, Sheet | Surface |
| 37 | Cover (Door 39) | 7075-T76 Alclad, Sheet | Surface |
| 38 | Cover | 7075-T76 Alclad, Sheet | Surface |
| 39 | Strap | 7075-T76 Alclad, Sheet | Surface |
| 40 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 41 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 42 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 43 | Cover | 7075-T76 Alclad, Sheet | Surface |
| 44 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 45 | Strap | 7075-T76 Alclad, Sheet | Surface |
| 46 | Rib | 7075-T76 Al Aly, Sheet | Surface |
| 47 | Plate | 7075-T7351 Al Aly, Plate | Pitting |
| 48 | Rib | 7075-T76 Al Aly, Sheet | Surface |
| 49 | Rib | 7075-T76 Al Aly, Sheet | Surface |
| 50 | Rib | 7075-T76 Al Aly, Sheet | Surface |

Figure 3. Air Inlet Skins, Doors and Covers (Sheet 7)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|-----------------------|-------------------------------|------------------|
| 51 | Skin (Door 29) | 7075-T6 Al Aly, Sheet | Surface |
| 52 | Bearing | Steel | Surface |
| 53 | Hinge Half | A357-T61 Al Aly, Casting | Pitting, Surface |
| 54 | Skin | 6061-T62 Al Aly, Sheet | Surface |
| 55 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 56 | Angle | 7075-T62 Al Aly, Sheet | Surface |
| 57 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 58 | Angle | 7075-T62 Al Aly, Sheet | Surface |
| 59 | Upper Section, Outer | 6062-T62 Al Aly, Sheet | Surface |
| 60 | Center Section, Outer | 6061-T62 Al Aly, Sheet | Surface |
| 61 | Nose Section | 6061-T62 Al Aly, Sheet | Surface |
| 62 | Inner Skin | 6061-T62 Al Aly, Sheet | Surface |
| 63 | Lower Section, Inner | 6061-T62 Al Aly, Sheet | Surface |
| 64 | Lower Section, Outer | 6061-T62 Al Aly, Sheet | Surface |
| 65 | Upper Skin, Inner | 6061-T62 Al Aly, Sheet | Surface |
| 66 | Panel | 7075-T62 Al Aly, Sheet | Surface |
| 67 | Skin | 7075-T62 Al Aly, Sheet | Surface |
| 68 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 69 | Stringer | 7075-T7351 Al Aly, Plate | Pitting |
| 70 | Panel | 7075-T62 Al Aly, Sheet | Surface |
| 71 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 72 | Cap | 7075-T73511 Al Aly, Extrusion | Pitting |
| 73 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 74 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 75 | Stringer | 7075-T62 Al Aly, Sheet | Surface |

Figure 3. Air Inlet Skins, Doors and Covers (Sheet 8)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------|----------------|
| 76 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 77 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 78 | Doubler | 7075-T62 Alclad, Sheet | Surface |
| 79 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 80 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 81 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 82 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 83 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 84 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 85 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 86 | Stringer | 7075-T62 Al Aly, Sheet | Surface |
| 87 | Stringer | 7075-T62 Al Aly, Sheet | Surface |

Figure 3. Air Inlet Skins, Doors and Covers (Sheet 9)

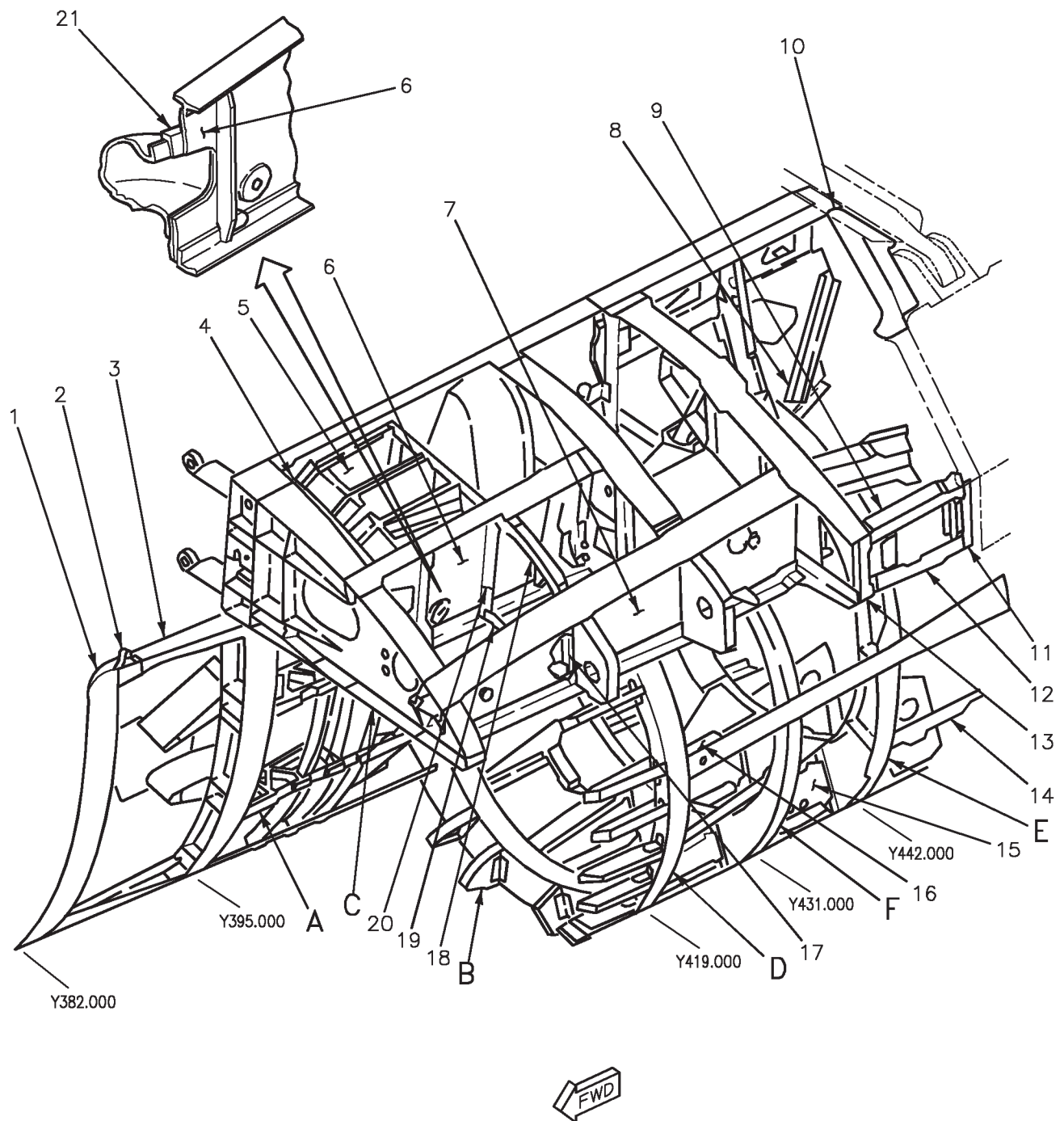


Figure 4. Air Inlet Bulkheads, Formers, Longerons and Stringers (Sheet 1)

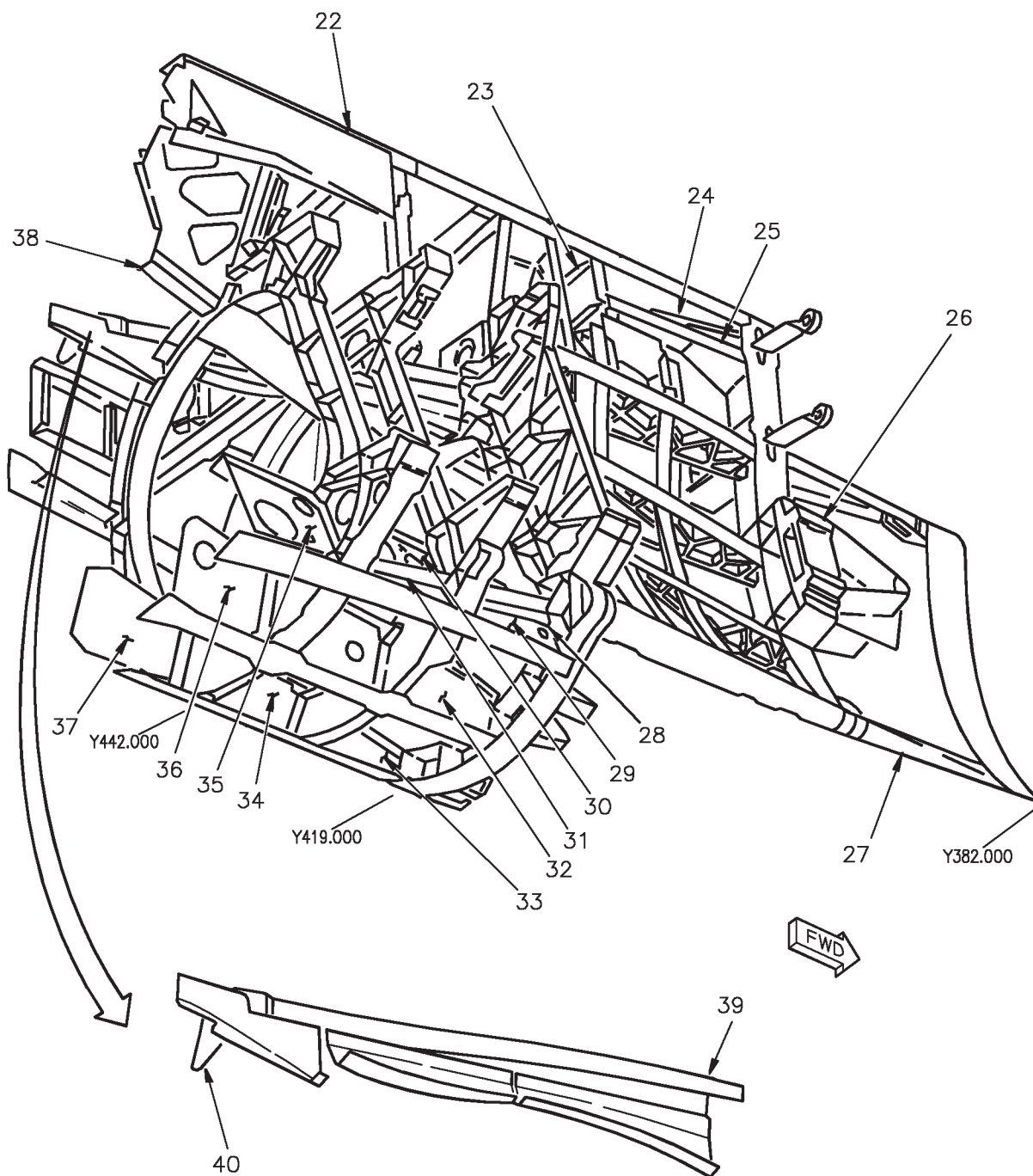


Figure 4. Air Inlet Bulkheads, Formers, Longerons and Stringers (Sheet 2)

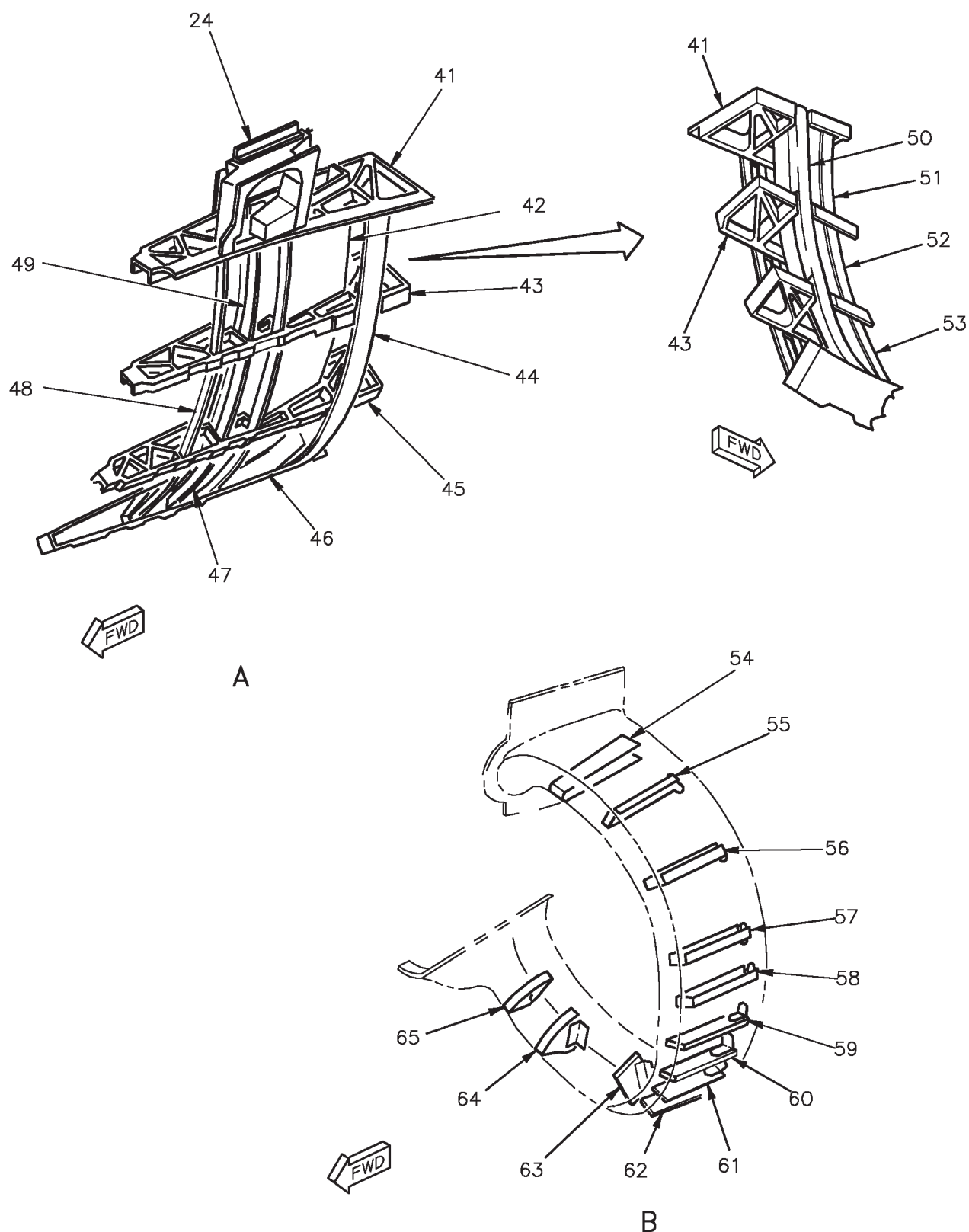


Figure 4. Air Inlet Bulkheads, Formers, Longerons and Stringers (Sheet 3)

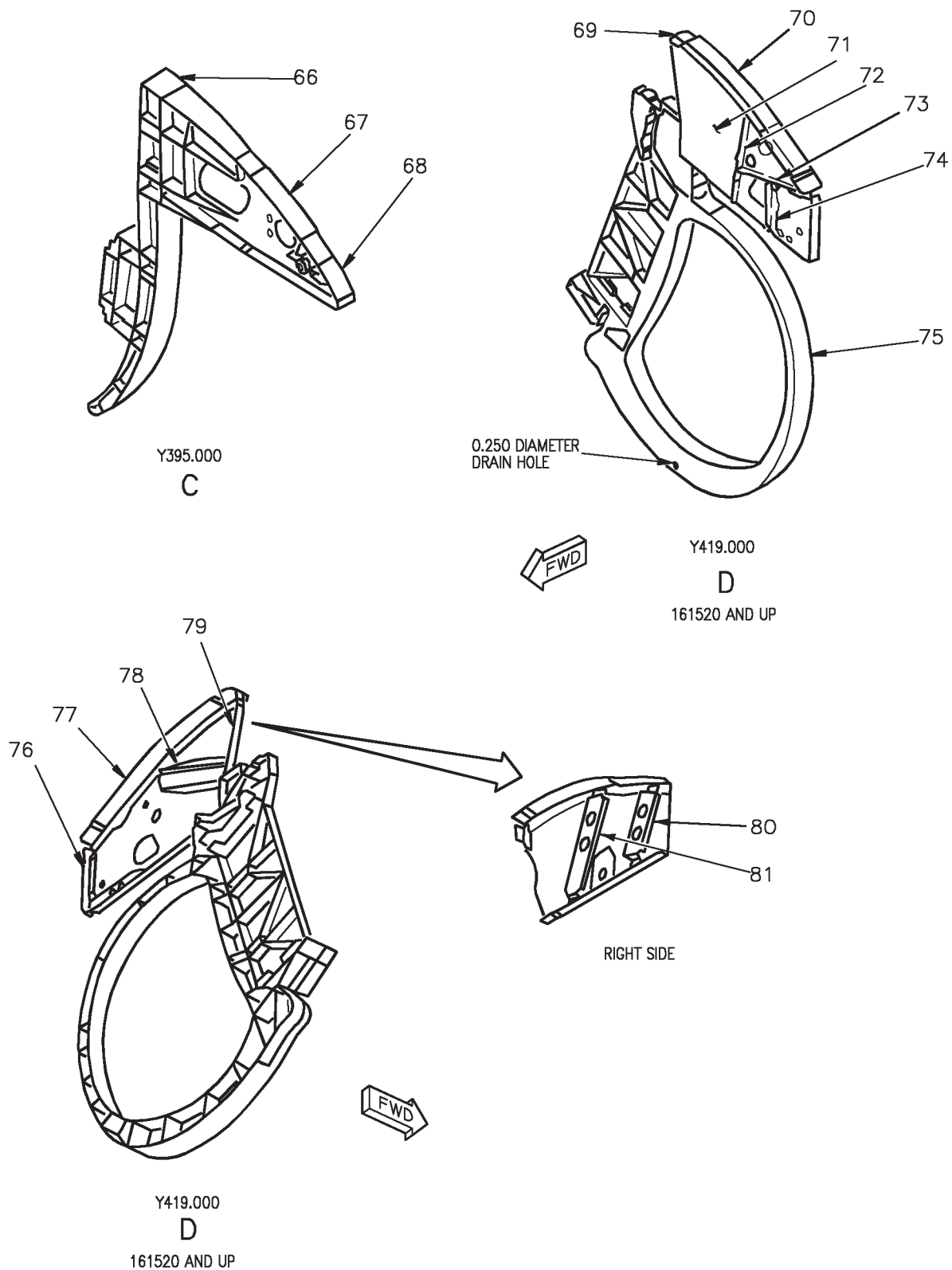


Figure 4. Air Inlet Bulkheads, Formers, Longerons and Stringers (Sheet 4)

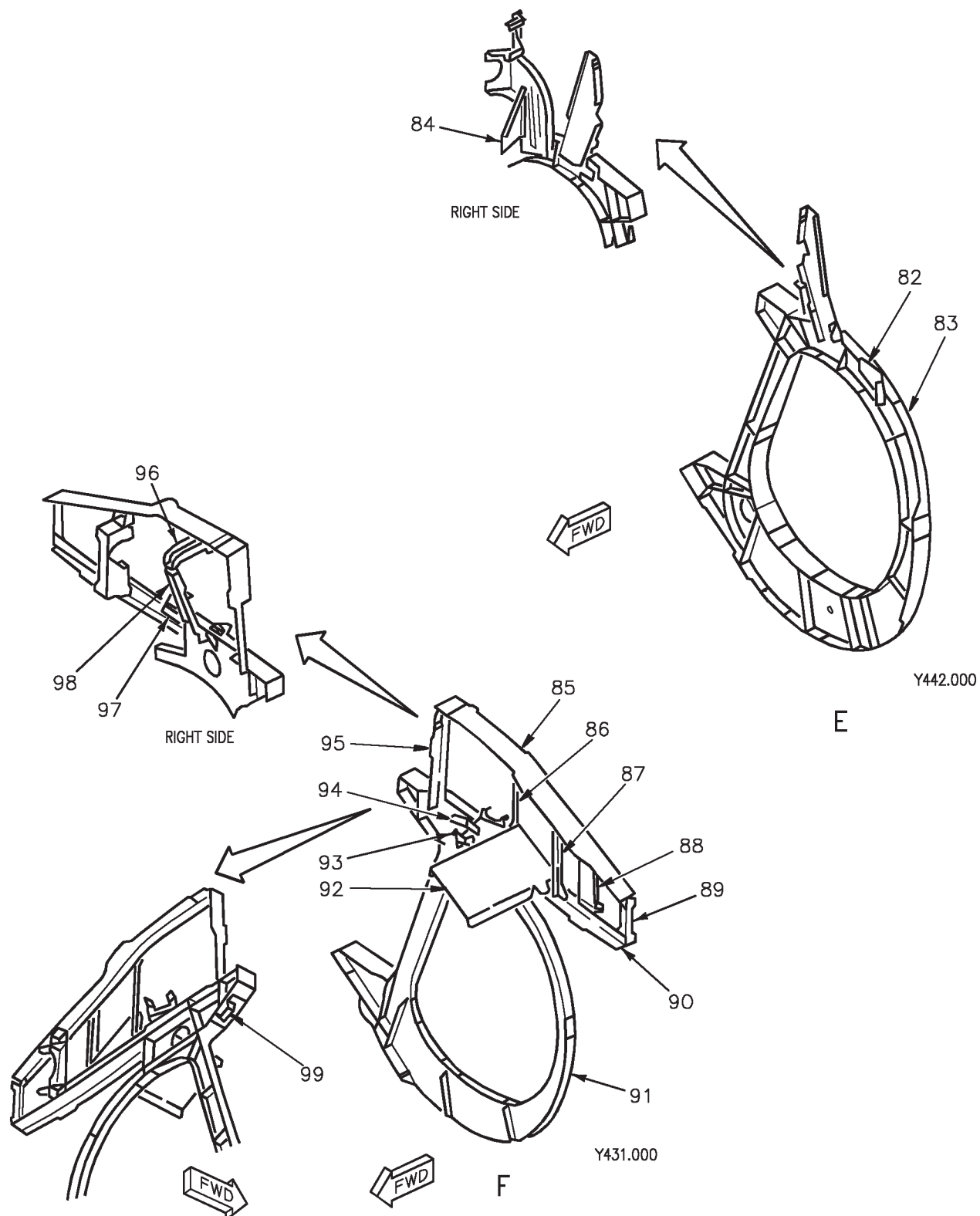


Figure 4. Air Inlet Bulkheads, Formers, Longerons and Stringers (Sheet 5)

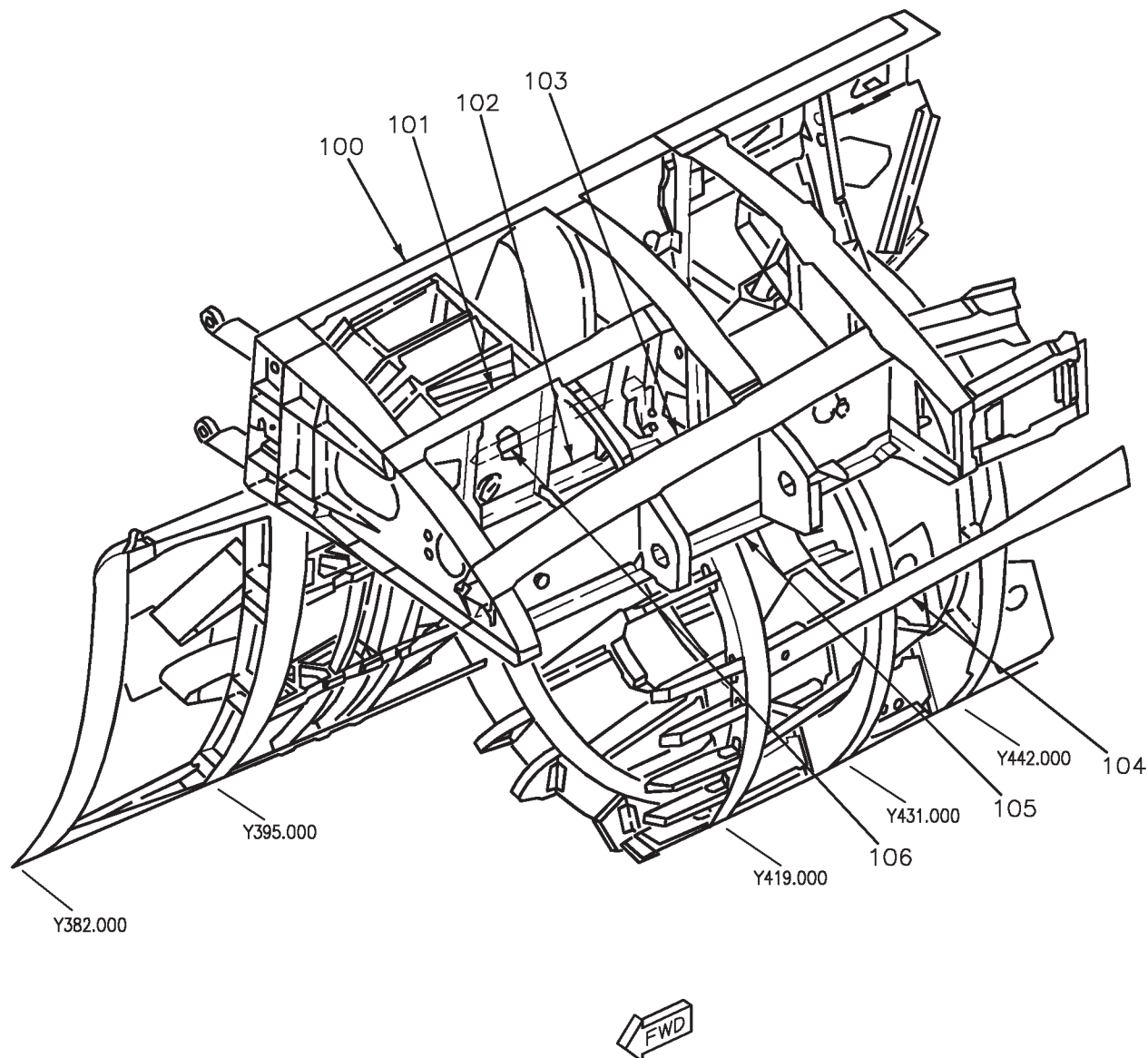


Figure 4. Air Inlet Bulkheads, Formers, Longerons and Stringers (Sheet 6)

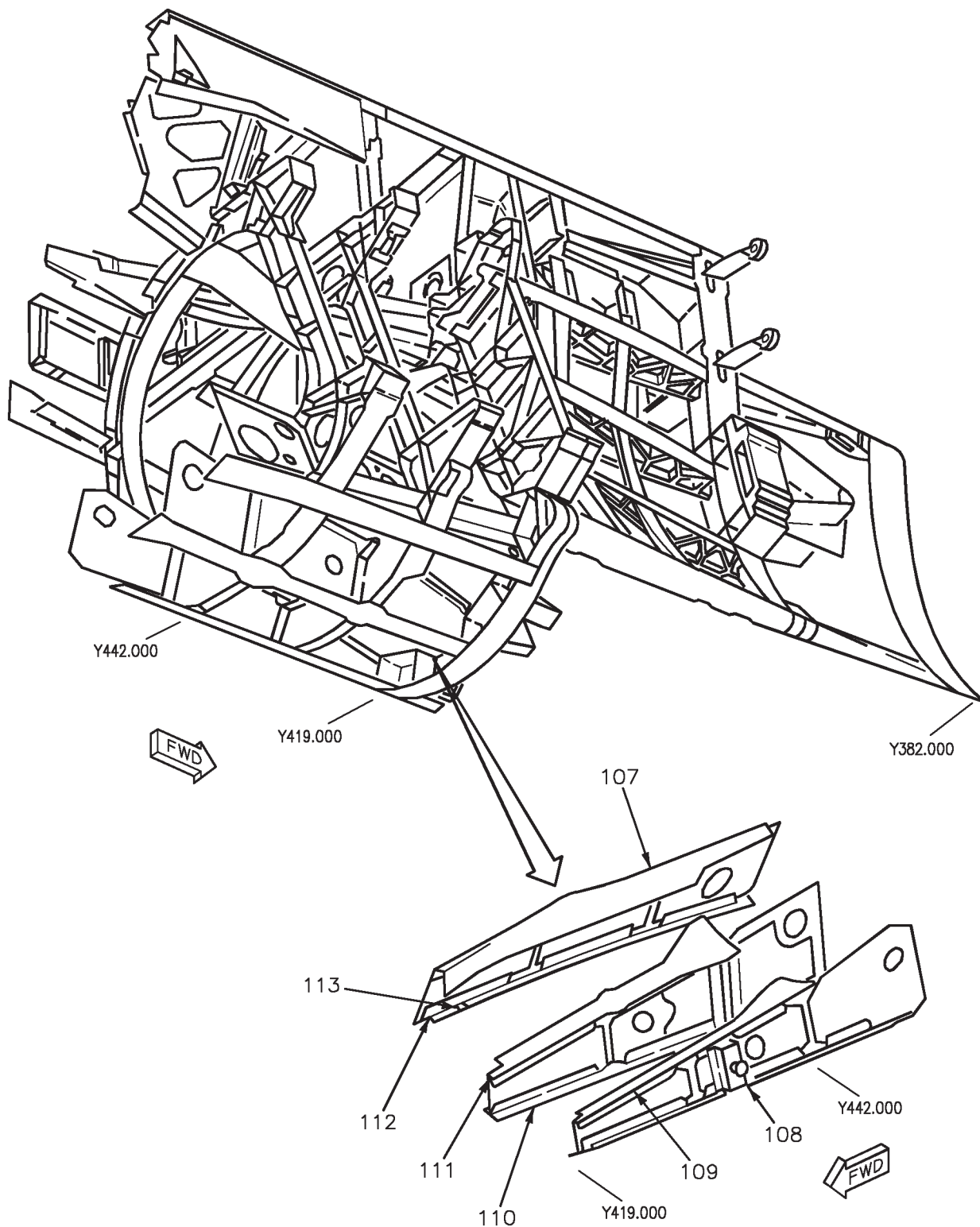


Figure 4. Air Inlet Bulkheads, Formers, Longerons and Stringers (Sheet 7)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 1 | Ramp | 7075-T7351 Al Aly, Plate | Pitting |
| 2 | Support | CRES, Bar | — |
| 3 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 4 | Seal | 7075-T6 Alclad, Sheet | Surface |
| 5 | Cover | 7075-T76 Al Aly, Sheet | Surface |
| 6 | Web | 7075-T6 Alclad, Sheet | Surface |
| 7 | Web | 7075-T6 Alclad, Sheet | Surface |
| 8 | Channel | 7075-T62 Al Aly, Sheet | Surface |
| 9 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 10 | Former | A356-T61 Al Aly, Casting | Surface, Pitting |
| 11 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 12 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 13 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 14 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 15 | Web | 7075-T6 Alclad, Sheet | Surface |
| 16 | Fitting | 7075-T7351 Al Aly, Bar | Pitting |
| 17 | Angle | 7075-T76511 Al Aly, Extrusion | Pitting |
| 18 | Angle | 7075-T76 Al Aly, Extrusion | Pitting |
| 19 | Angle | 7075-T76 Al Aly, Extrusion | Pitting |
| 20 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 21 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 22 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 23 | Support | 7075-T62 Alclad, Sheet | Surface |
| 24 | Bracket | 7075-T62 Alclad, Sheet | Surface |
| 25 | Fitting | 7075-T62 Alclad, Sheet | Surface |

Figure 4. Air Inlet Bulkheads, Formers, Longerons, and Stringers (Sheet 8)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|------------------|
| 26 | Lip, Duct | A356-T61 Al Aly, Casting | Surface, Pitting |
| 27 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 28 | Support | 7075-T62 Al Aly, Sheet | Surface |
| 29 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 30 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 31 | Support | 7075-T76 Al Aly, Sheet | Surface |
| 32 | Web | 7075-T6 Alclad, Sheet | Surface |
| 33 | Web | 7075-T62 Al Aly, Sheet | Surface |
| 34 | Web | 7075-T62 Al Aly, Sheet | Surface |
| 35 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 36 | Web | 7075-T6 Alclad, Sheet | Surface |
| 37 | Web | 7075-T62 Al Aly, Sheet | Surface |
| 38 | Angle | 7075-T62 Al Aly, Sheet | Surface |
| 39 | Longeron | 7075-T62 Al Aly, Sheet | Surface |
| 40 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 41 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 42 | Bulkhead | 2024-T72 Alclad, Sheet | Surface |
| 43 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 44 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 45 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 46 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 47 | Bulkhead | 7074-T72 Alclad, Sheet | Surface |
| 48 | Bulkhead | 2024-T72 Alclad, Sheet | Surface |
| 49 | Bulkhead | 2024-T72 Alclad, Sheet | Surface |
| 50 | Former | 7075-T76 Al Aly, Extrusion | Pitting |

Figure 4. Air Inlet Bulkheads, Formers, Longérons, and Stringers (Sheet 9)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|------------------|
| 51 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 52 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 53 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 54 | Former | 7075-T73511 Al Aly, Bar | Pitting |
| 55 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 56 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 57 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 58 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 59 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 60 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 61 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 62 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 63 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 64 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 65 | Former | 7075-T73511 Al Aly, Bar | Pitting |
| 66 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 67 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 68 | Former | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 69 | Shim | 7075-T6 Alclad, Sheet | Surface |
| 70 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 71 | Web | 7075-T6 Alclad, Sheet | Surface |
| 72 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 73 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 74 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 75 | Former | 7075-T7351 Al Aly, Plate | Pitting |

Figure 4. Air Inlet Bulkheads, Formers, Longerons, and Stringers (Sheet 10)





| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|---|----------------------------|------------------|
| 76 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 77 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 78 | Support | 7075-T62 Alclad, Sheet | Surface |
| 79 | Angle | 7075-T76 Al Aly, Extrusion | Pitting |
| 80 | Bracket | 6061-T6 Al Aly, Sheet | Surface |
| 81 | Bracket | 6061-T6 Al Aly, Sheet | Surface |
| 82 | Gusset | 7075-T62 Al Aly, Sheet | Surface |
| 83 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 84 | Bracket | 6061-T4 Al Aly, Sheet | Surface |
| 85 | Beam | 7050-T76 Al Aly, Extrusion | Pitting |
| 86 |  Bracket | 7075-T7351 Al Aly, Plate | Pitting |
| |  Bracket | 7075-T62 Al Aly, Sheet | Surface |
| 87 |  Bracket | 7075-T62 Alclad, Sheet | Surface |
| |  Bracket | 7075-T62 Al Aly, Sheet | Surface |
| 88 | Support | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 89 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 90 | Spar | 7075-T73511 Al Aly, Bar | Pitting |
| 91 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 92 | Bracket | 7075-T62 Al Aly, Sheet | Surface |
| 93 | Bracket | 7075-T62 Al Aly, Sheet | Surface |
| 94 | Bracket | 7075-T62 Al Aly, Sheet | Surface |
| 95 | Support | 7050-T76 Al Aly, Extrusion | Pitting |
| 96 | Bracket | 17-7PH CRES | — |
| 97 | Bracket | 6061-T6 Al Aly, Sheet | Surface |
| 98 | Bracket | 17-7PH CRES | — |

Figure 4. Air Inlet Bulkheads, Formers, Longerons, and Stringers (Sheet 11)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---|----------------------|------------------------------|----------------|
| 99 | Bracket | 17-7PH CRES | — |
| 100 | Longeron | 7075-T76 Al Aly, Extrusion | Pitting |
| 101 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 102 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 103 | Cap | 7075-T6 Al Aly, Extrusion | Pitting |
| 104 | Longeron | 7075-T76 Al Aly, Extrusion | Pitting |
| 105 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 106 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 107 | Cap | 7075-T7351 Al Aly, Plate | Pitting |
| 108 | Cap | 7075-T7351 Al Aly, Bar | Pitting |
| 109 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 110 | Cap | 7075-T73511 Al Aly, Bar | Pitting |
| 111 | Cap | 7075-T6511 Al Aly, Extrusion | Pitting |
| 112 | Cap | 7075-T7351 Al Aly, Bar | Pitting |
| 113 | Filler | 7075-T6 Alclad, Sheet | Surface |
| <p style="text-align: center;">LEGEND</p> <p> 1 161353 THRU 161519. 2 161520 AND UP. </p> | | | |

Figure 4. Air Inlet Bulkheads, Formers, Longerons, and Stringers (Sheet 12)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FORWARD CENTER FUSELAGE SEALS AND SEALING

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |

Alphabetical Index

| Subject | Page No. |
|--------------------|----------|
| Introduction | 1 |
| Sealing..... | 1 |
| Seals | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. Exterior sealing on the forward center fuselage is for corrosion control. Sealing prevents moisture entry, dissimilar metal contact, and provides a barrier between structure, skin, and elements.

3. **SEALING.** Use MIL-S-83430, class B-4 sealing compound (WP010 00 and A1-F18AC-SRM-200,

WP011 00), see figure 1. Use class B for fay surface, form in place, butt joint, and fastener sealing. MIL-S-8802 or MIL-S-81733 is the alternate, except when graphite epoxy structure or form in place door seals are used.

a. Removable covers/doors or access panels on mold line surfaces are sealed with form in place seals.

NOTE

Fay surface and butt joint sealing may be done simultaneously by being sure sealant squeeze out from the fay surface fills the butt joint gap.

b. The periphery of all external permanent skins, structure, components, or parts are fay surface sealed. This includes items attached with removable fasteners and do not require removal for scheduled maintenance. Some areas are categorized as requiring exterior sealant smoothness requirements, chaff and flare dispenser wells, bleed air and liquid cooling system exhausts, environmental control system ram air compartments and bleed air compartments of the intake ramp or bleed air cell walls are in this category, see figure 2.

c. The periphery of all external permanent skins, structure, components, or parts are butt joint or fillet sealed. This includes chaff and flare dispenser wells, bleed air and liquid cooling system exhausts, environmental control system ram air compartments, and bleed air compartments of the intake ramp or bleed air cell walls.

d. All permanent fasteners, except aluminum rivets, see e. below, installed in mold line and other exterior categorized surfaces are installed wet with sealing compound.

e. Aluminum rivets in mold line surfaces and exterior categorized areas are installed with primer or sealant except fast rivets which are wet installed with primer.

4. SEALS. See figure 1.

a. EMI seal (2) and (4), on door 26.

b. Weather seal (3) and (5), on door 26.

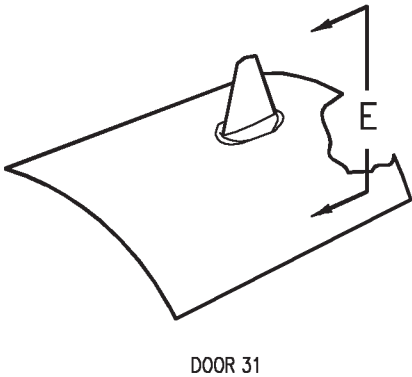
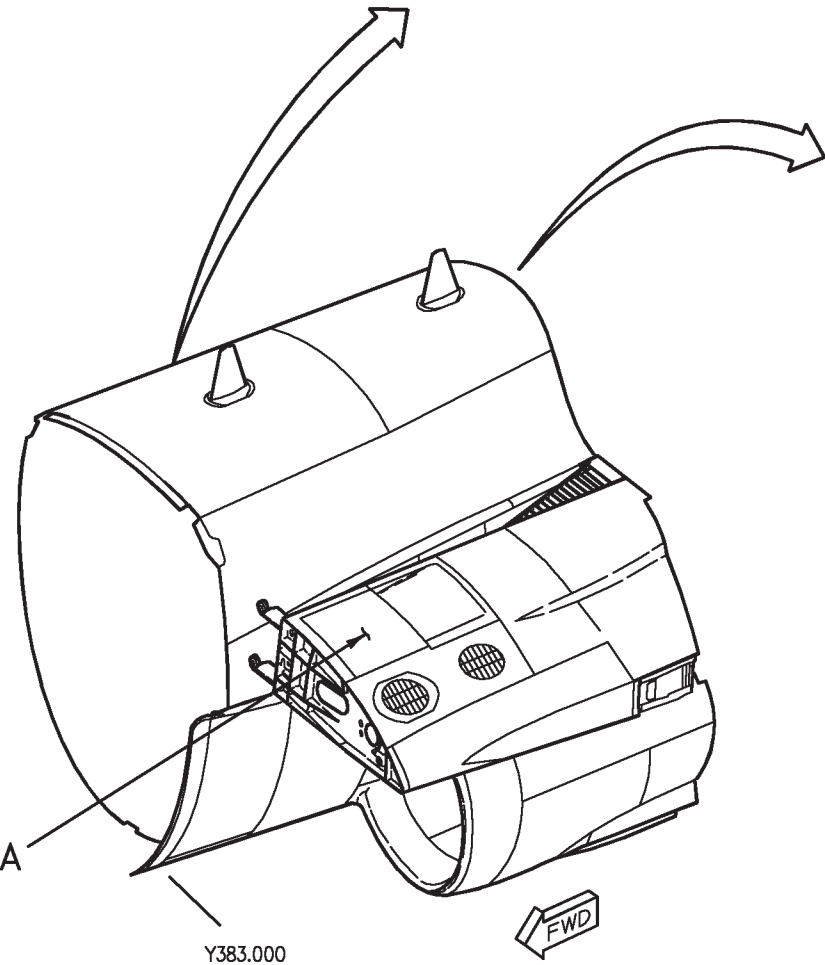
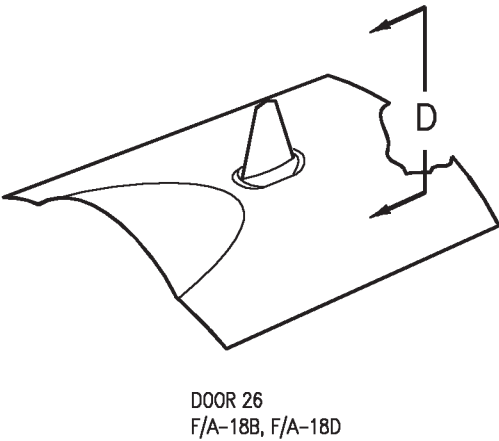
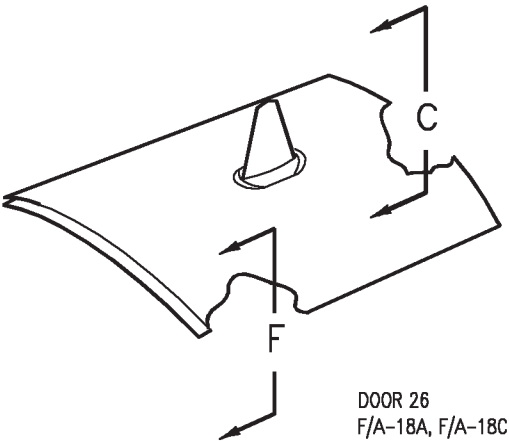
c. EMI seal (6), on door 31.

d. Weather seal (7), on door 31.

e. Weather seal (1), on door 29.

f. EMI seal (8), on structure for doors 26 and 31.

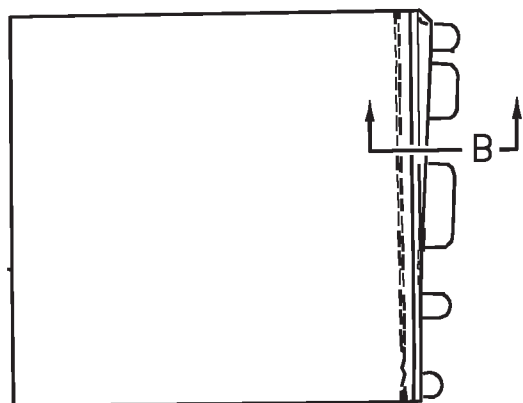
g. Weather seal (9), on structure for door 26.



| INDEX NO. | NOMENCLATURE |
|-----------|--------------|
| 1 | WEATHER SEAL |
| 2 | EMI SEAL |
| 3 | WEATHER SEAL |
| 4 | EMI SEAL |
| 5 | WEATHER SEAL |
| 6 | EMI SEAL |
| 7 | WEATHER SEAL |
| 8 | EMI SEAL |
| 9 | WEATHER SEAL |

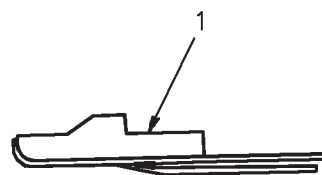
LEFT SHOWN
RIGHT OPPOSITE

Figure 1. Seals and Sealing (Sheet 1)

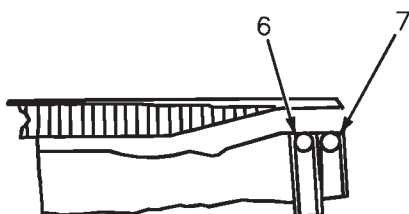


DOOR 29

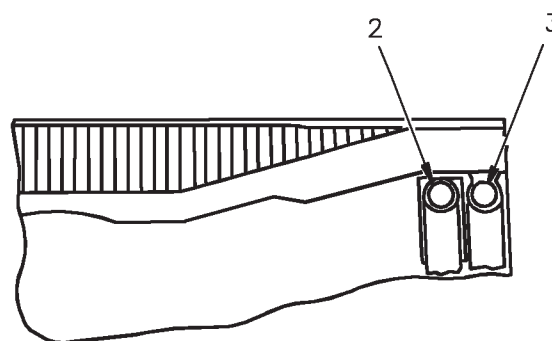
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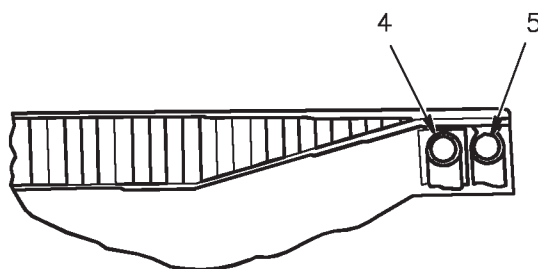
B



E



C



D

Figure 1. Seals and Sealing (Sheet 2)

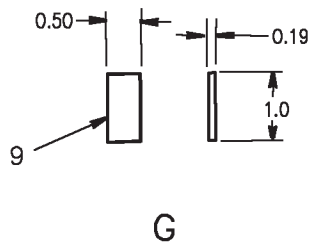
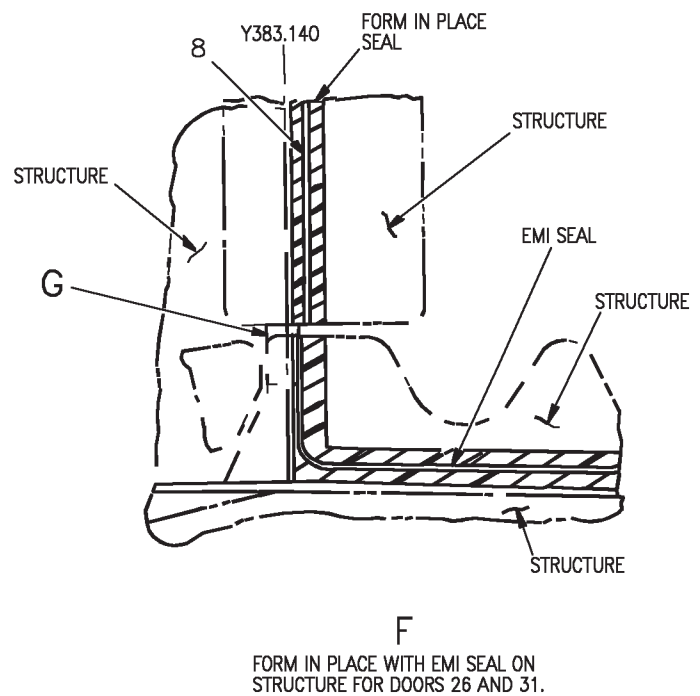
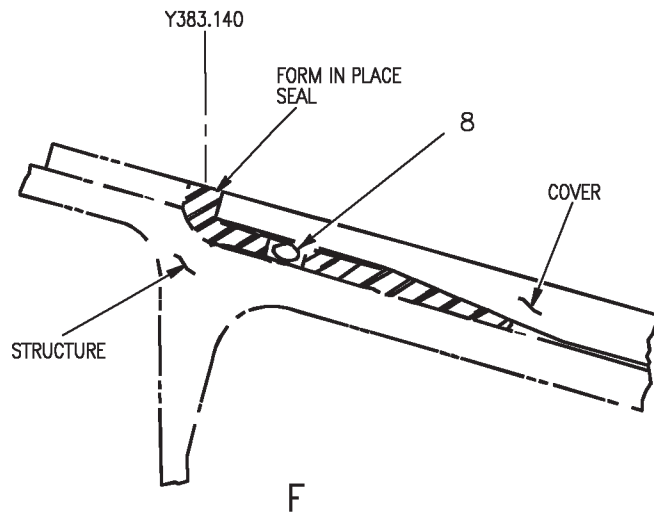


Figure 1. Seals and Sealing (Sheet 3)

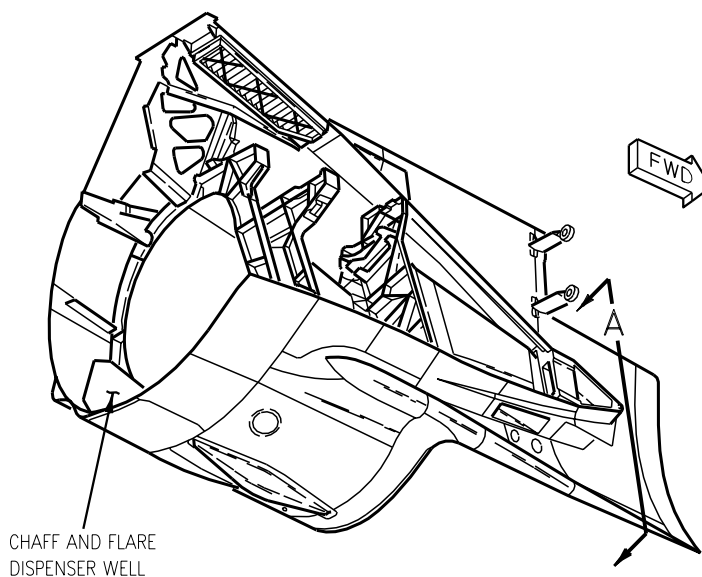
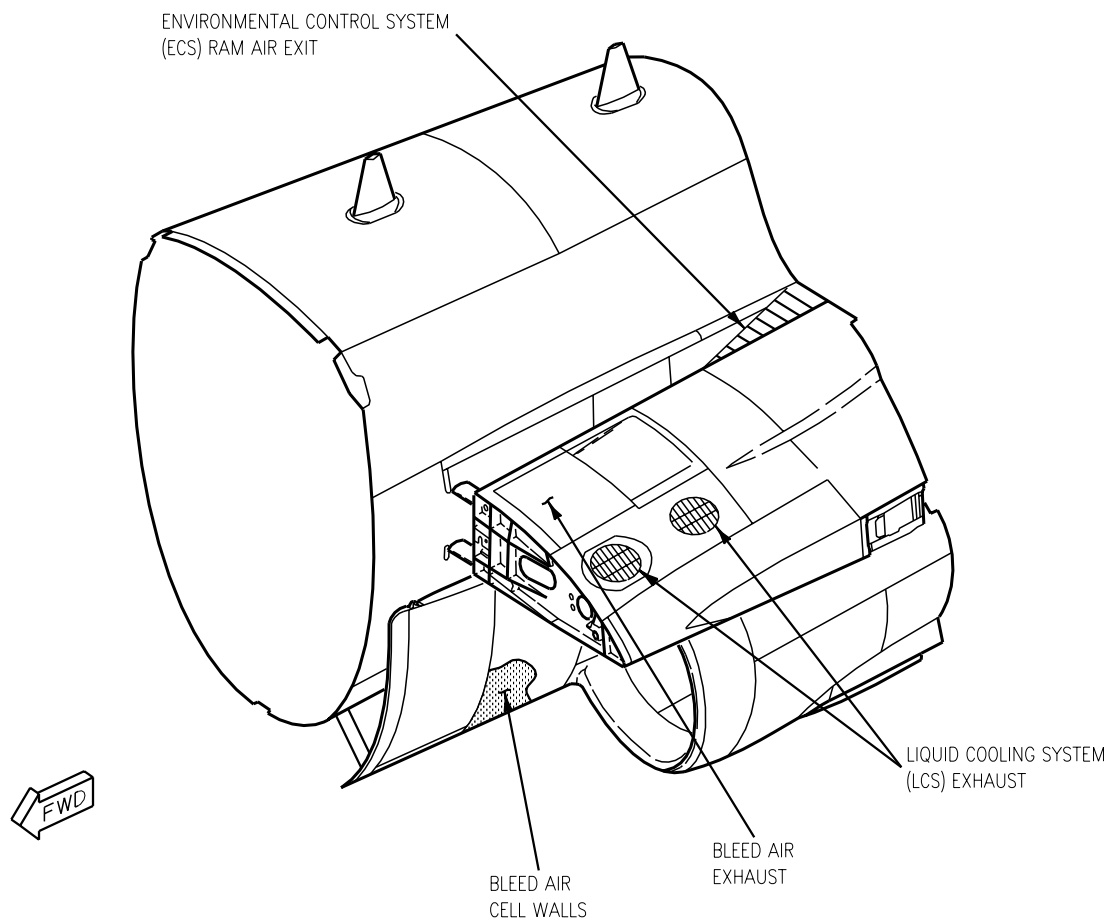


Figure 2. Exterior Categorized Surface Sealing (Sheet 1)

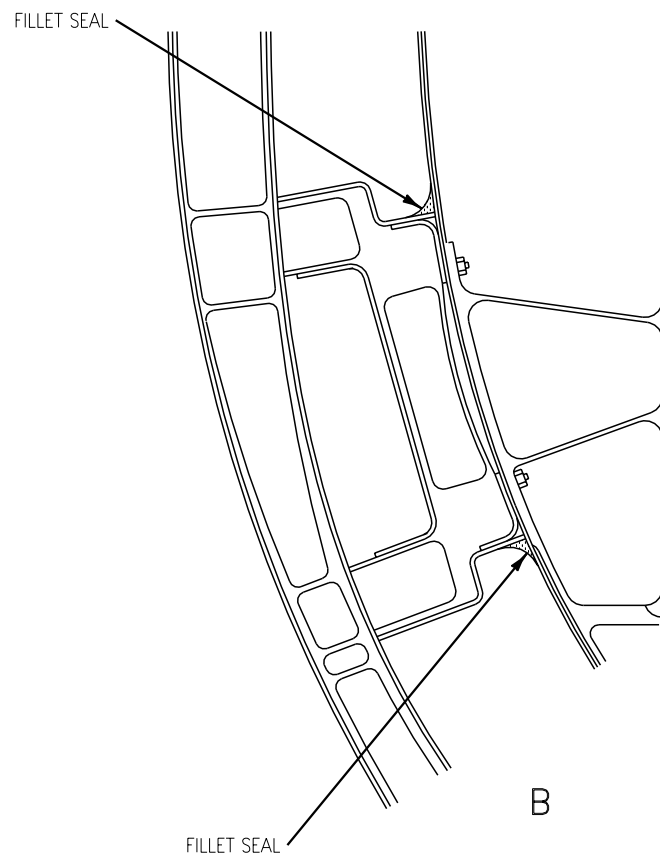
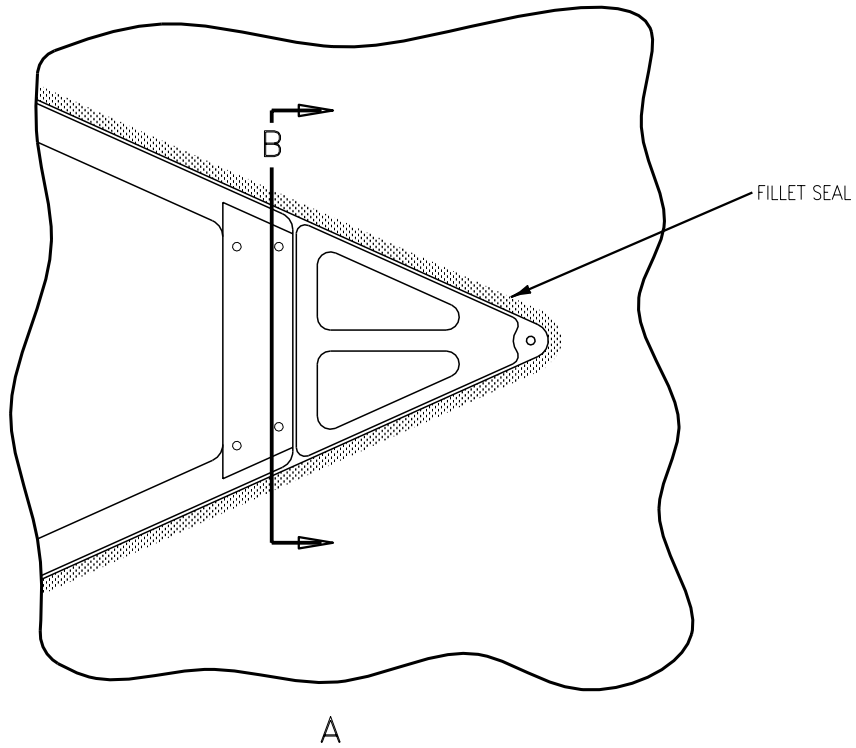


Figure 2. Exterior Categorized Surface Sealing (Sheet 2)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

FORWARD CENTER FUSELAGE FINISH SYSTEM AND MARKINGS

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Line Maintenance Access Doors | A1-F18AC-LMM-010 |
| Structure Repair, Center Fuselage | A1-F18AE-SRM-700 |

Alphabetical Index

| Subject | Page No. |
|-------------------------------------|----------|
| Description | 1 |
| Aircraft Refinishing | 3 |
| Finish System | 2 |
| Markings..... | 3 |
| Ramp Bleed Air Perforated Skin..... | 3 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Forward center fuselage is located aft of nose landing gear and forward of main landing gear. Structure and skins are aluminum, graphite epoxy, steel, and titanium. On 163985 AND UP, some parts require different damage evaluation which may affect finish system application. For identification of these parts refer to applicable work package in A1-F18AE-SRM-700.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|---------------------------------|--------------|
| MIL-P-23377 TY1 | Primer |
| MIL-P-85582, TY1CL1 or CL2 | Primer |
| MIL-P-23377, TY2 | Primer |
| MIL-P-85582, TY2CL1 | Primer |

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|---------------------------------|---|
| MIL-C-83286 | Aliphatic Polyurethane Enamel |
| MIL-C-85285, TY1 | Coating, Polyurethane, High Solids |
| 8681-GREY-36320-3IN | Plastic Strip, Press (Polyurethane Tape) |

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

3. **FINISH SYSTEM.** See figure 1.

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) White, FED-STD-595 color no. 17925, aliphatic polyurethane enamel:

(a) Interior surface of dorsal deck.

(b) Air intake duct, starting at first skin break and stopping at engine.

(c) Chaff dispensing well.

(2) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.

(3) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.

(4) Gray, FED-STD-595 color no. 36320, aliphatic polyurethane enamel.

d. Apply three inch wide polyurethane tape to the leading edge of antenna. See figure 1 for location. For polyurethane tape application (WP012 00).

e. Apply walkway coating to left and right leading edge extension as shown on figure 1. For walkway coating preparation and application (WP012 00).

f. Apply four additional coats of applicable color aliphatic polyurethane enamel to engine air inlet lip.

4. **MARKINGS.** See figures 2 and 3.

a. Markings are silk screen applied using contrasting commercial gray enamel. Use table 1 to determine applicable marking color number.

5. **RAMP BLEED AIR PERFORATED SKIN.** Remove paint clogged holes in ramp bleed air perforated skin. See figure 4.

a. Punch paint from clogged holes with a number 43 drill or a punch of equal size.

b. Remove doors 132, 133 and 198 (A1-F18AC-LMM-010).

c. Vacuum paint debris from door bays 132, 133 and 198.

d. Install doors 132, 133 and 198 (A1-F18AC-LMM-010).

WARNING

Use care not to clog holes in skin when priming and applying finish. Clogged holes may cause compressor stalls.

e. Apply finish system per paragraph 3, this WP.

6. **AIRCRAFT REFINISHING.** On 161353 THRU 161925, if complete aircraft requires refinishing, use finish system color diagram shown on figure 1 for 161926 THRU 163175.

Table 1. Marking Color Number

| Finish System Color Number | Marking Color Number |
|--|--|
| <div>3</div> Gray, FED-STD-595 color no. 36320 <div>4</div> Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36375 |
| <div>1</div> Gray, FED-STD-595 color no. 36375 <div>2</div> Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36320 |
| Gray, FED-STD-595 color no. 36495 | Gray, FED-STD-595 color no. 36375 |
| LEGEND | |
| <div>1</div> 161353 THRU 161925. <div>2</div> 161926 AND UP. <div>3</div> F/A-18A 161926 THRU 161929. <div>4</div> 161930 AND UP. | |

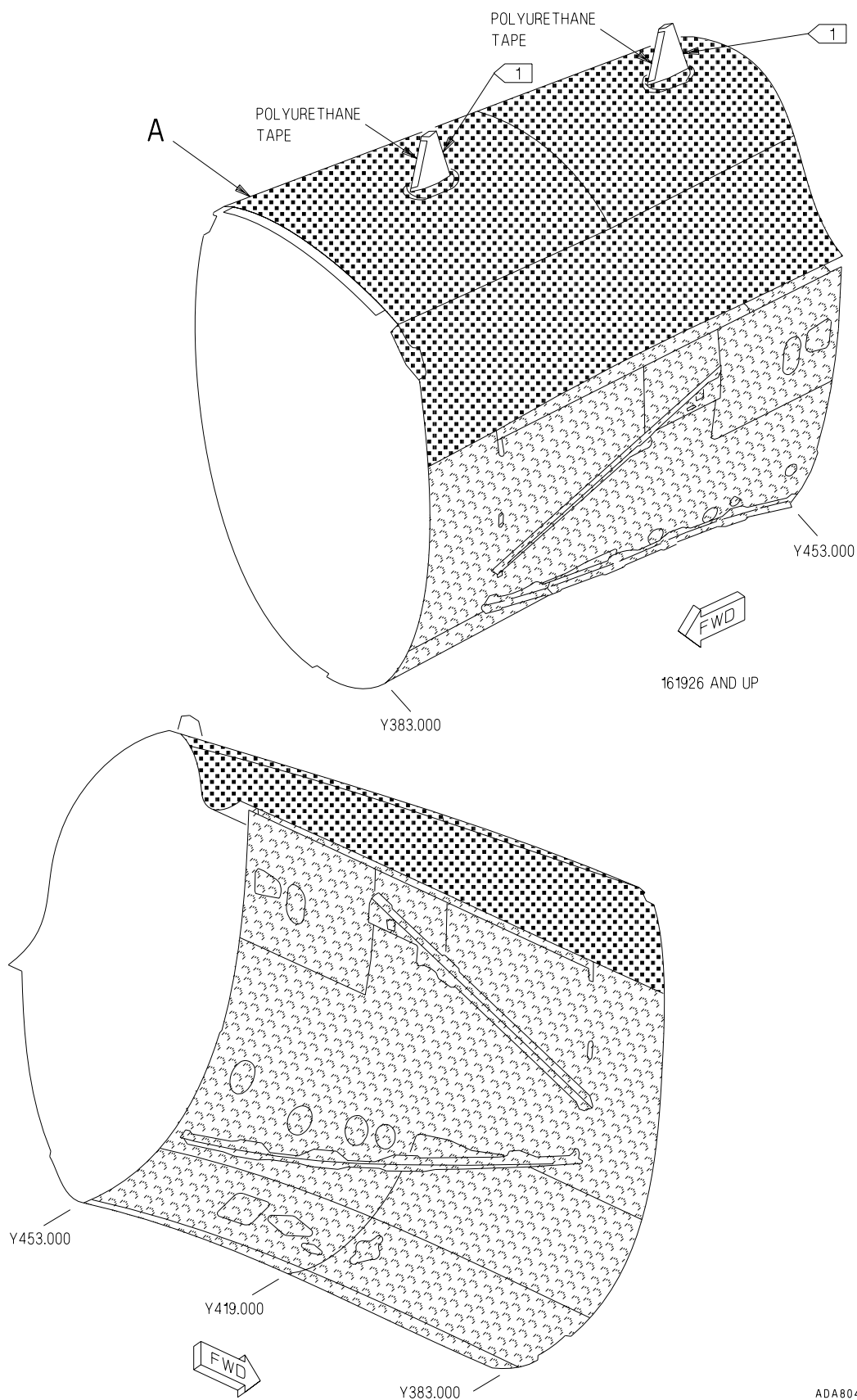


Figure 1. Finish System (Sheet 1)

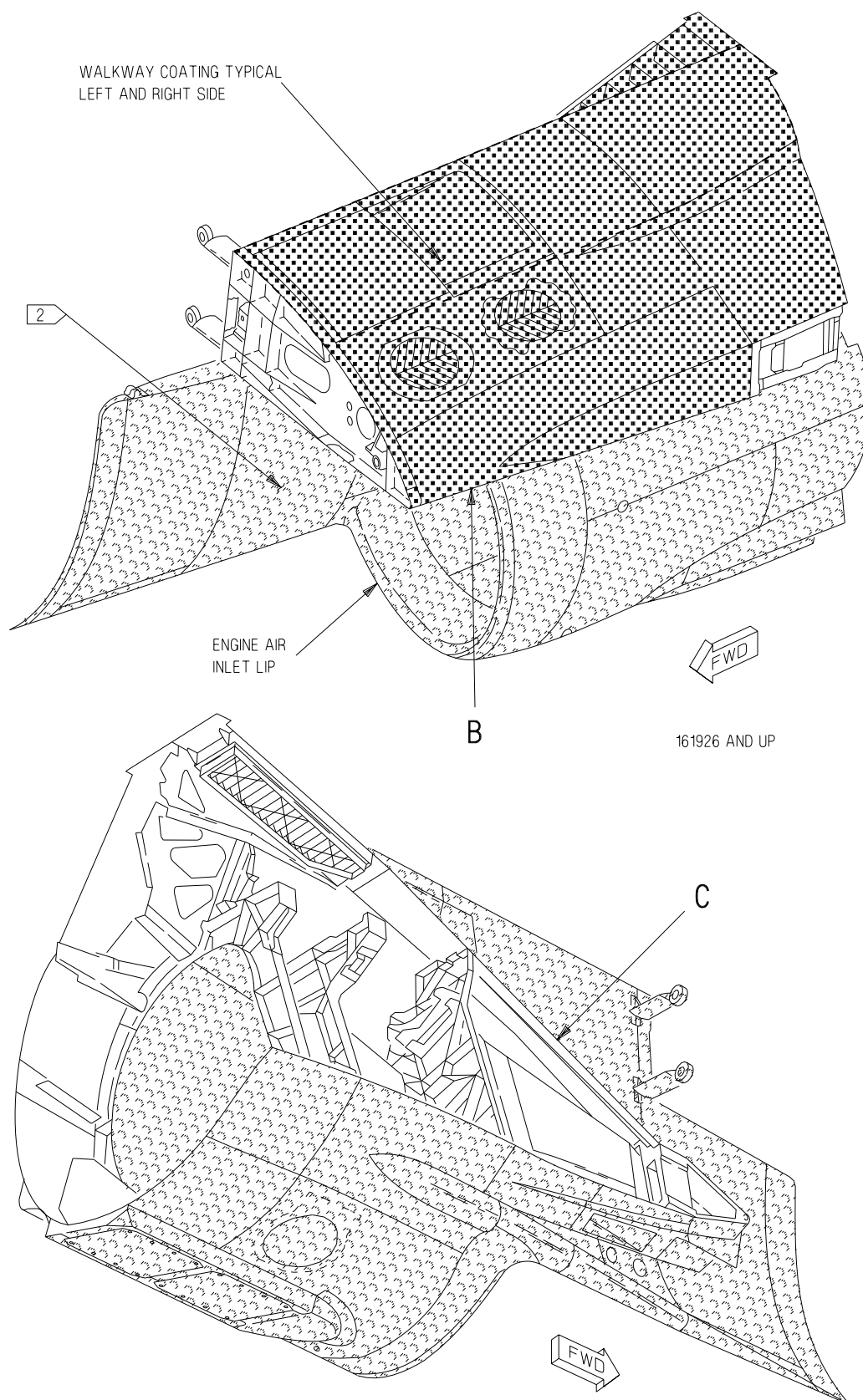


Figure 1. Finish System (Sheet 2)

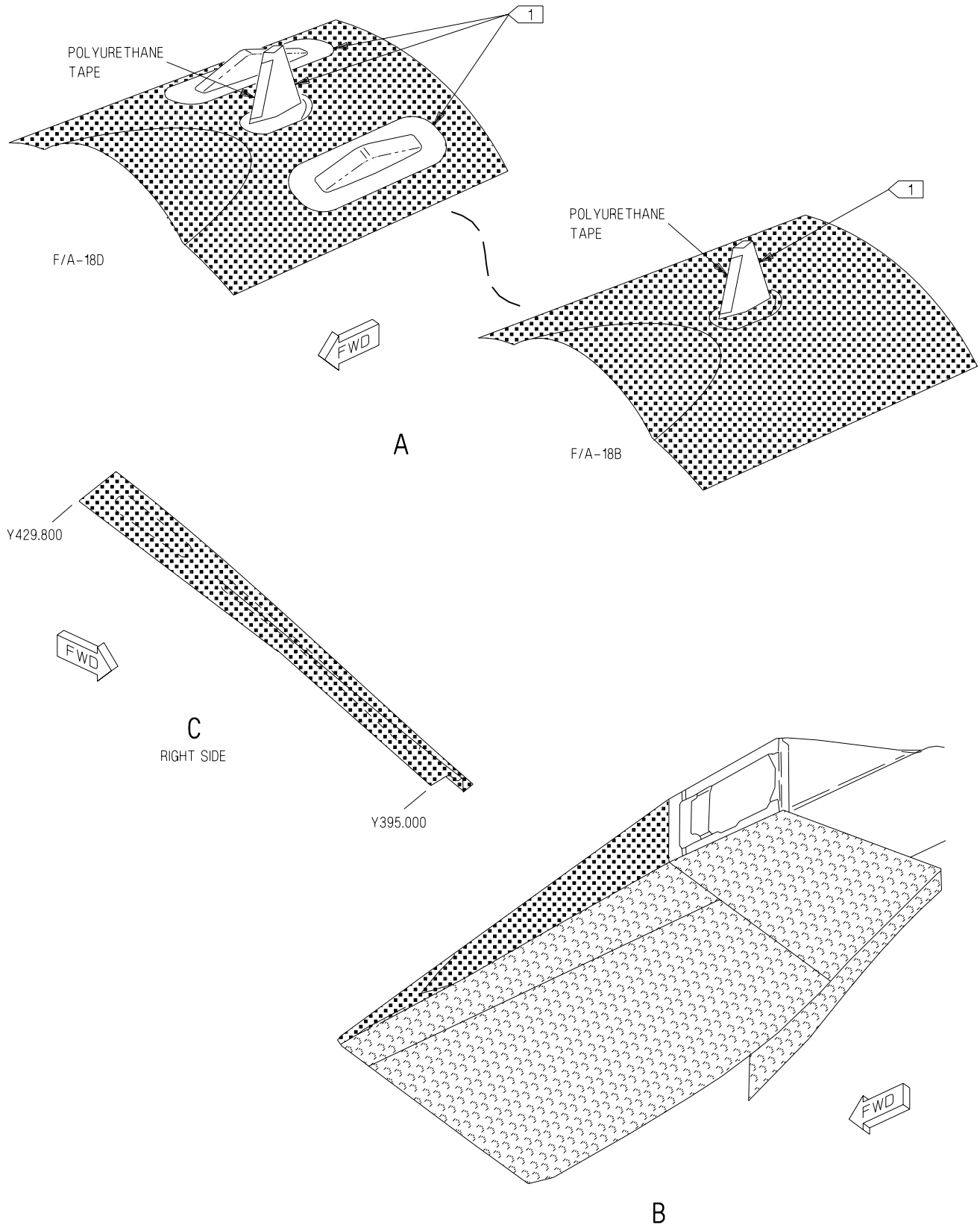


Figure 1. Finish System (Sheet 3)

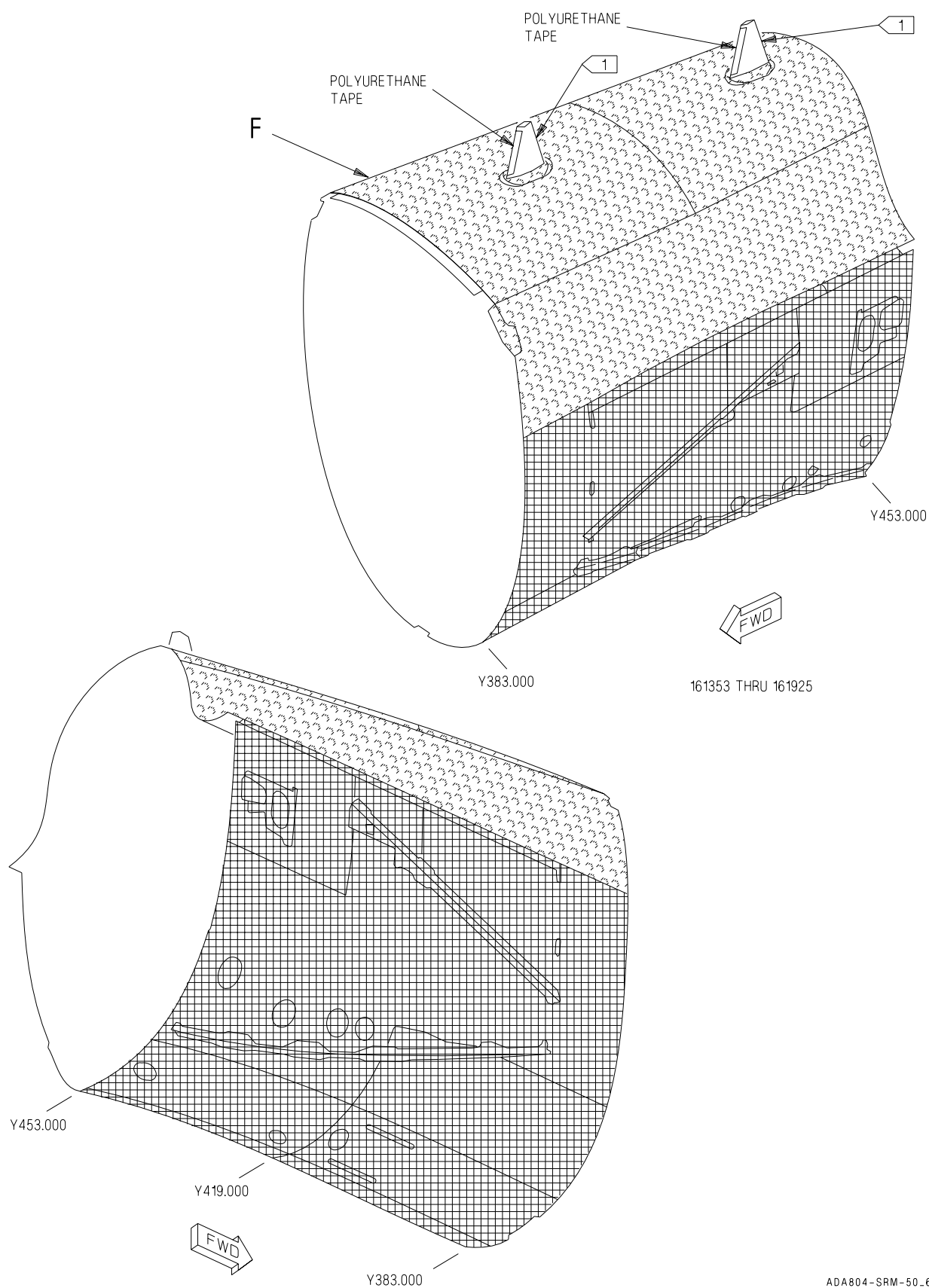
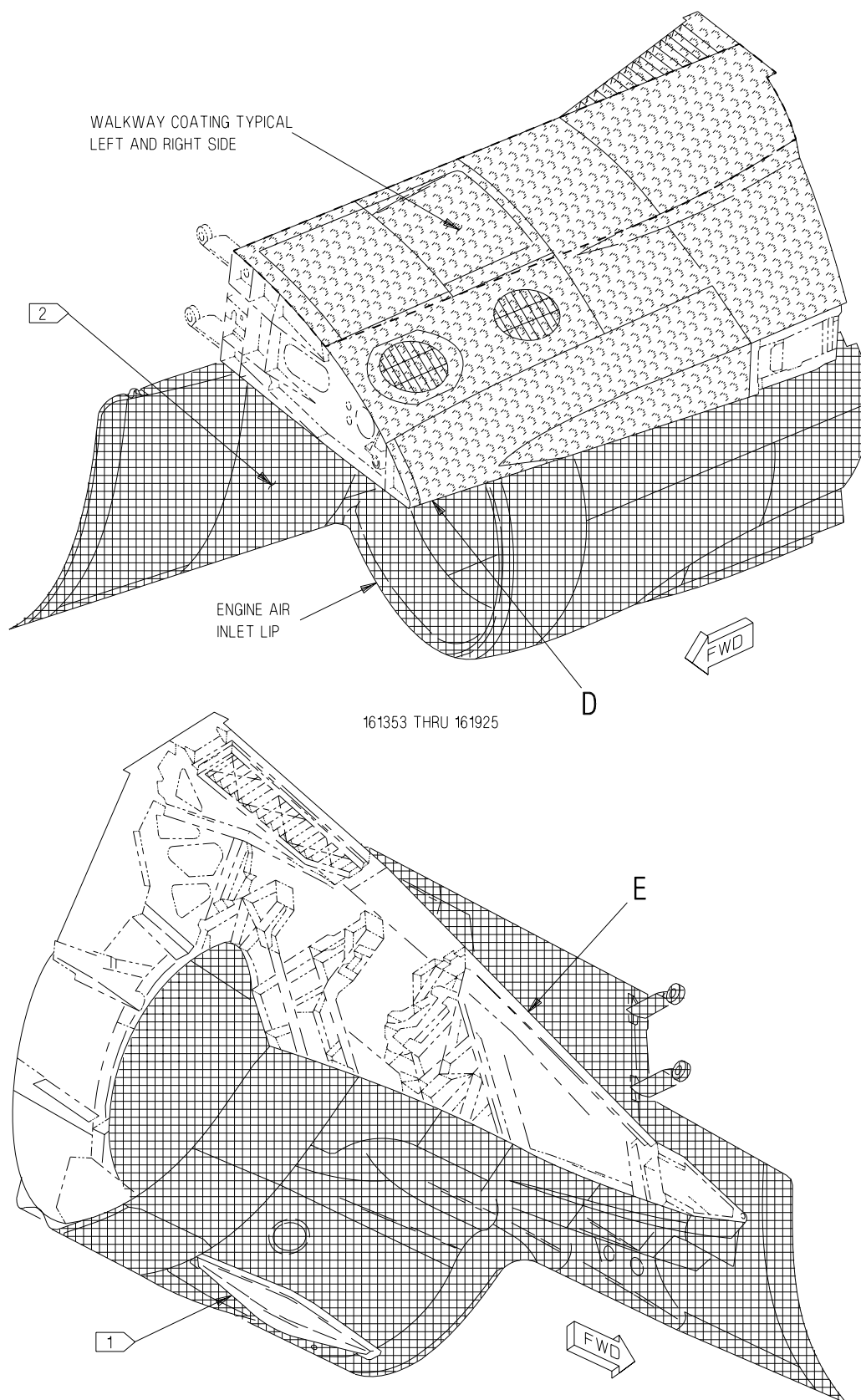


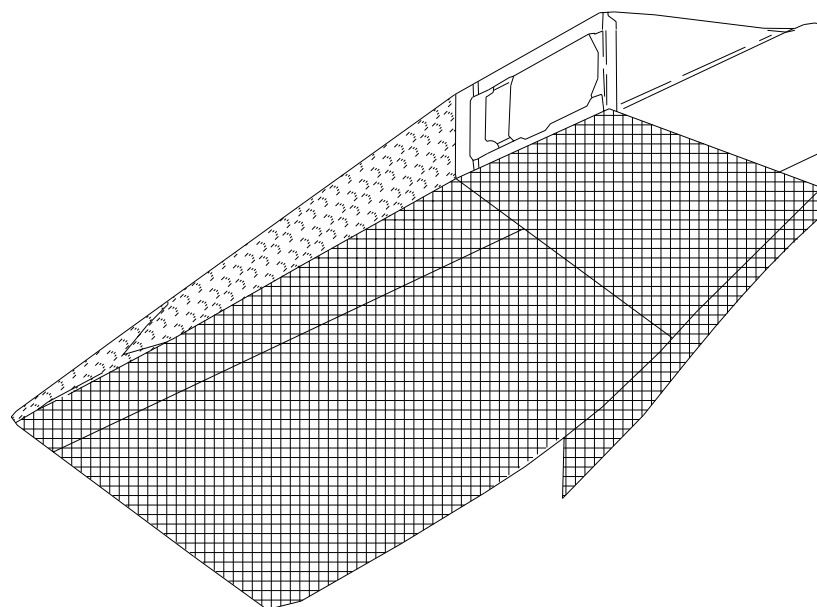
Figure 1. Finish System (Sheet 4)



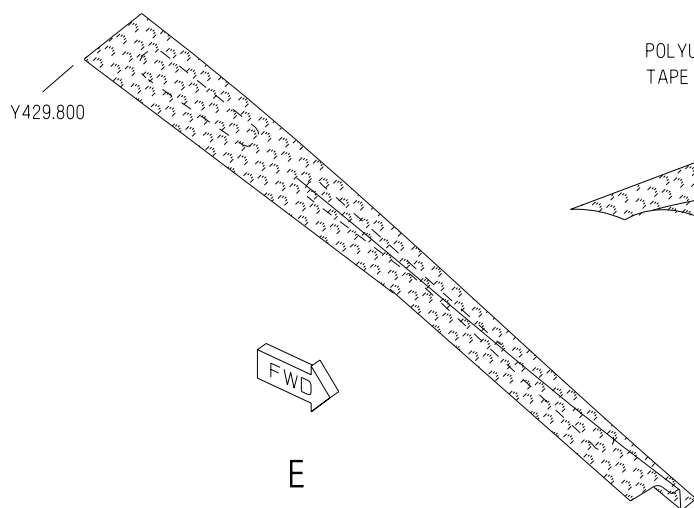
F/A-18A, F/A-18B 161353 THRU 161925

ADA804-SRM-50_66-5-39

Figure 1. Finish System (Sheet 5)



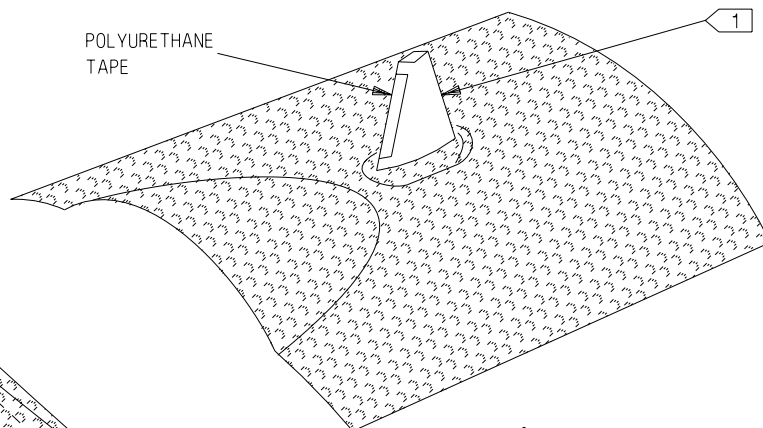
D



E

RIGHT SIDE

Y395.000



F


F/A-18B


161353 THRU 161925


ADA804-SRM-50_66-6-39


Figure 1. Finish System (Sheet 6)

LEGEND

 WALKWAY COATING, COLOR TO MATCH
ADJACENT AREA.

 GRAY, FED-STD-595 COLOR NO. 36375,
ALIPHATIC POLYURETHANE ENAMEL.

 GRAY, FED-STD-595 COLOR NO. 36495,
ALIPHATIC POLYURETHANE ENAMEL.

 GRAY, FED-STD-595 COLOR NO. 36320,
ALIPHATIC POLYURETHANE ENAMEL.



-  DO NOT PAINT.
-  WHEN REFINISHING THIS AREA REFER TO
RAMP BLEED AIR PERFORATED SKIN, THIS WP.

Figure 1. Finish System (Sheet 7)

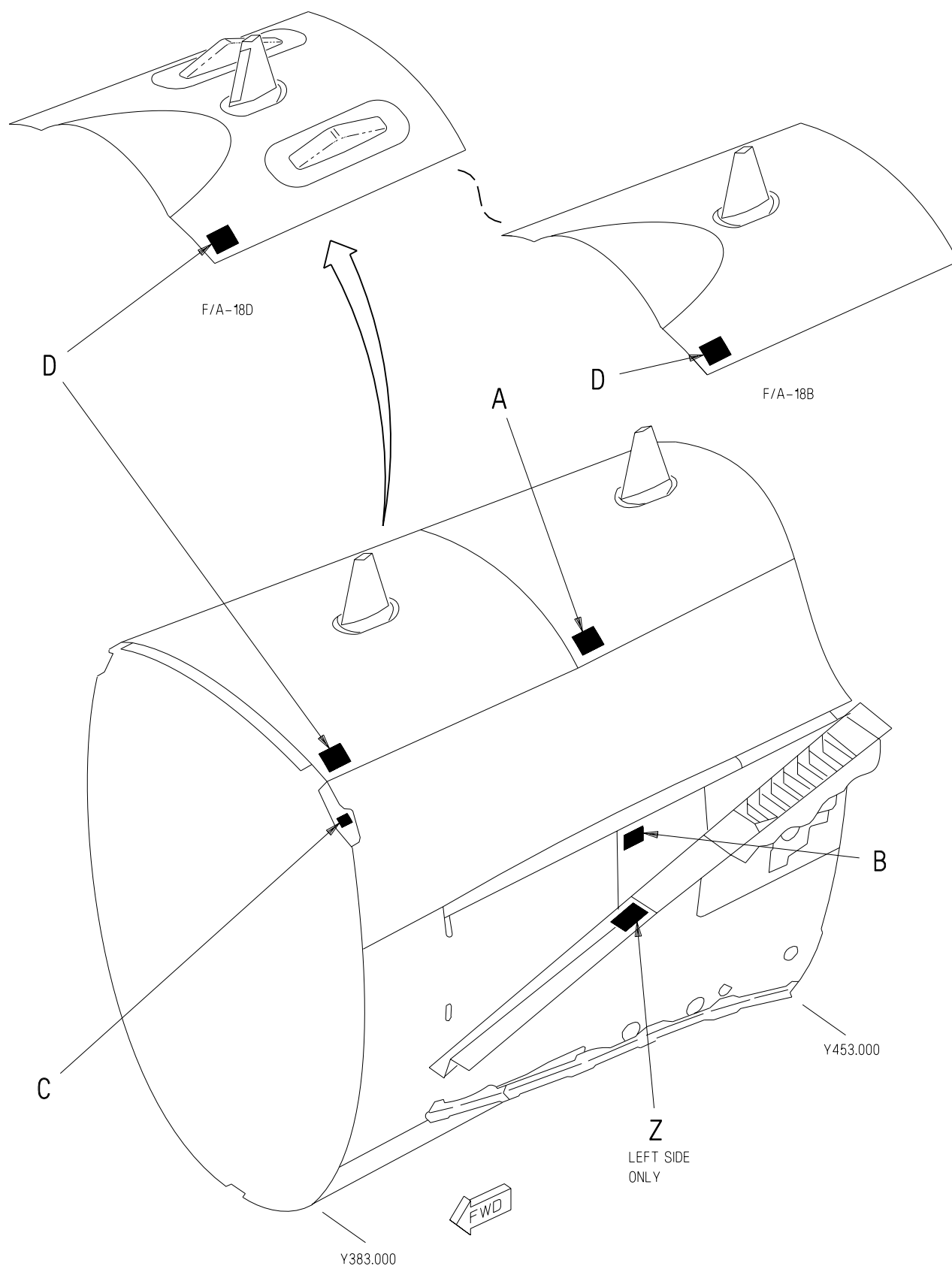


Figure 2. Door Markings (Sheet 1)

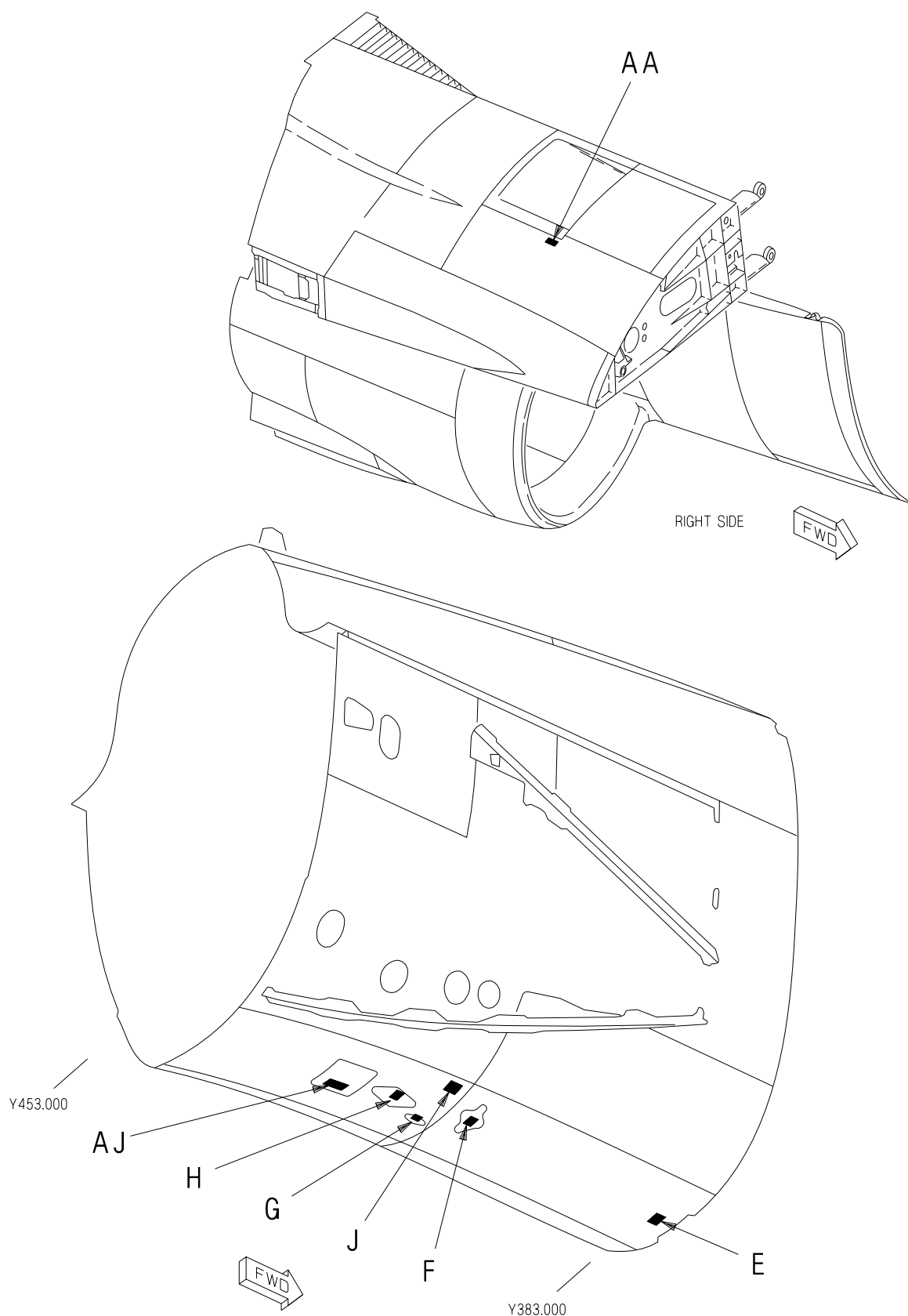


Figure 2. Door Markings (Sheet 2)

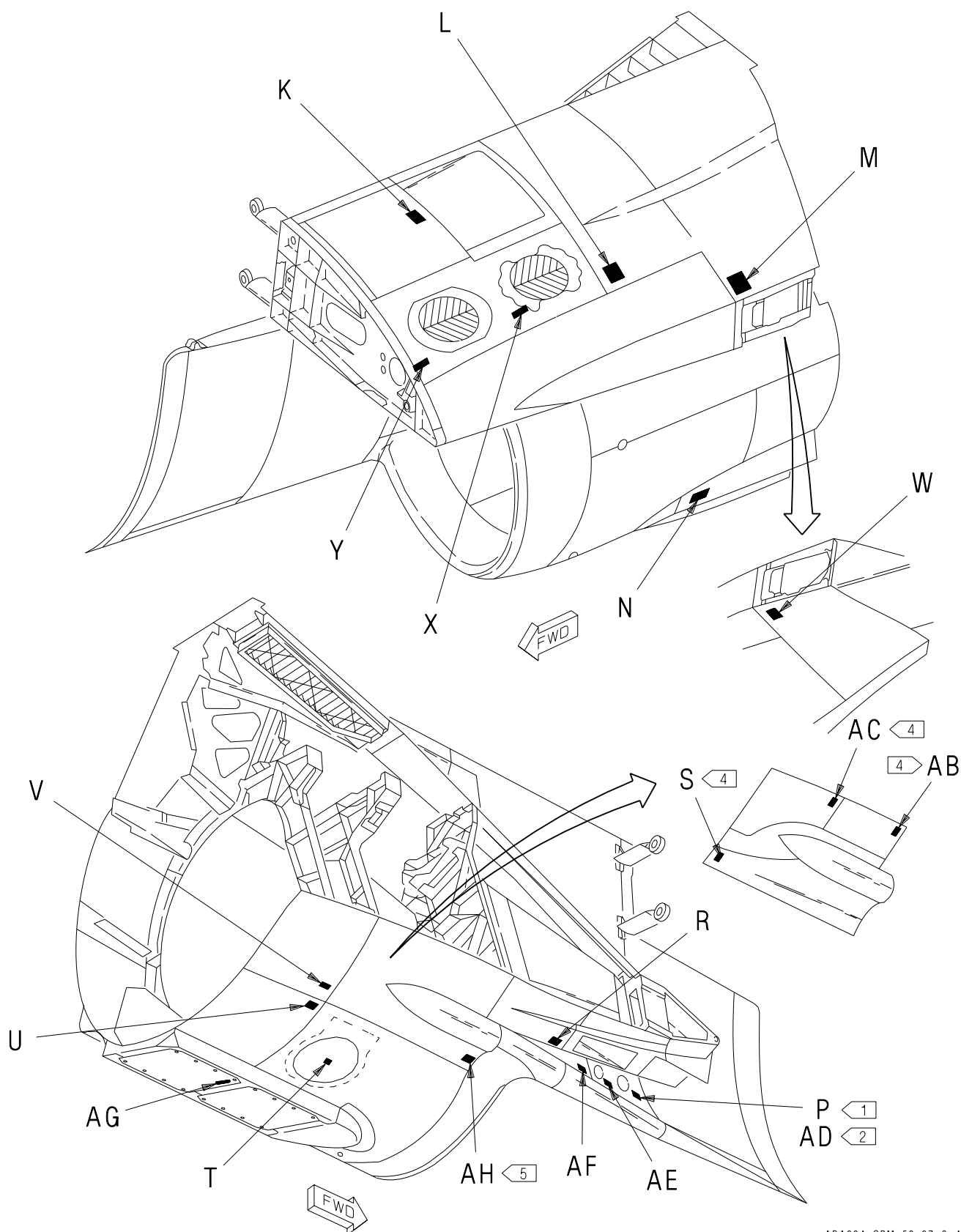


Figure 2. Door Markings (Sheet 3)

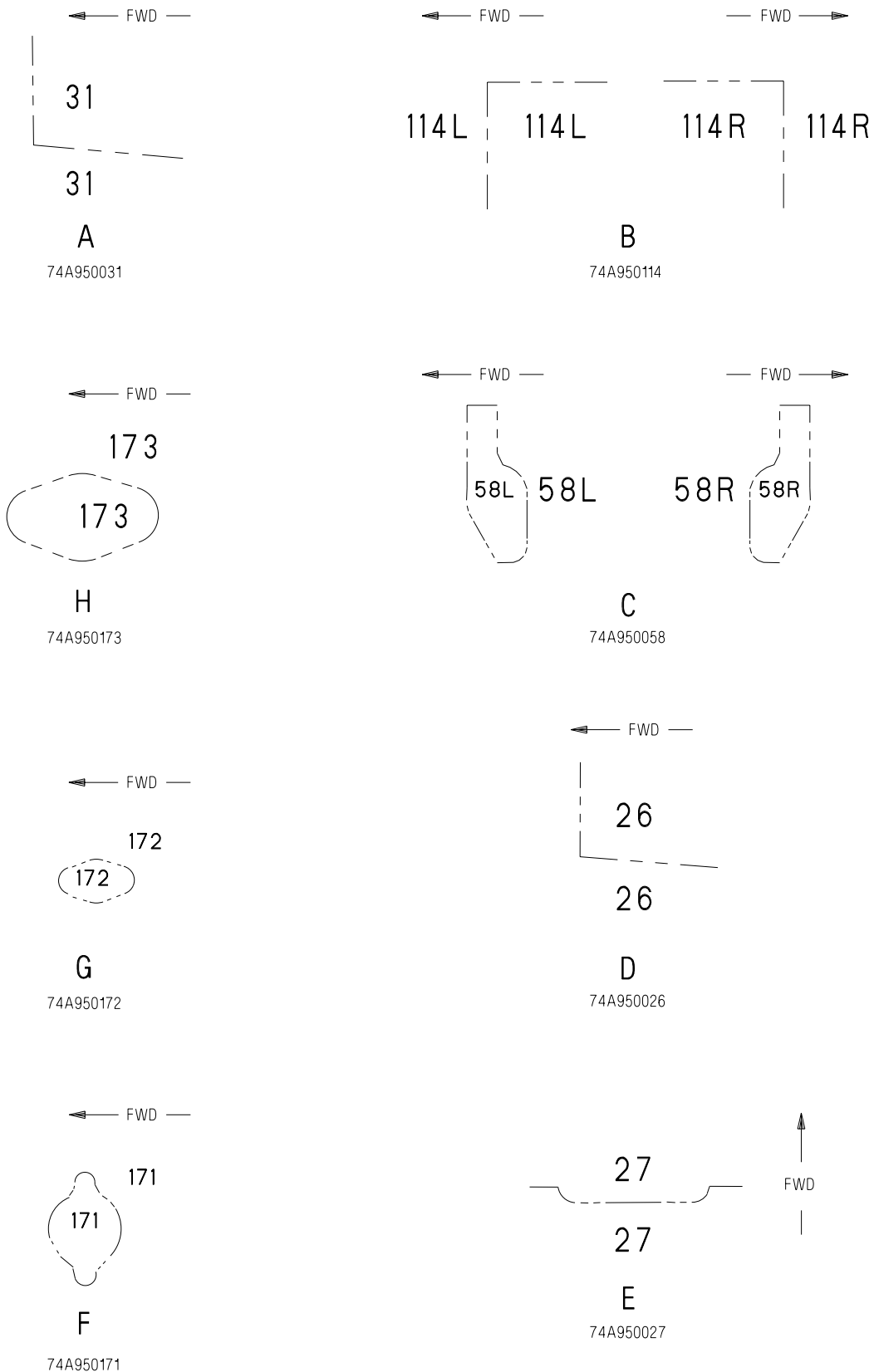


Figure 2. Door Markings (Sheet 4)

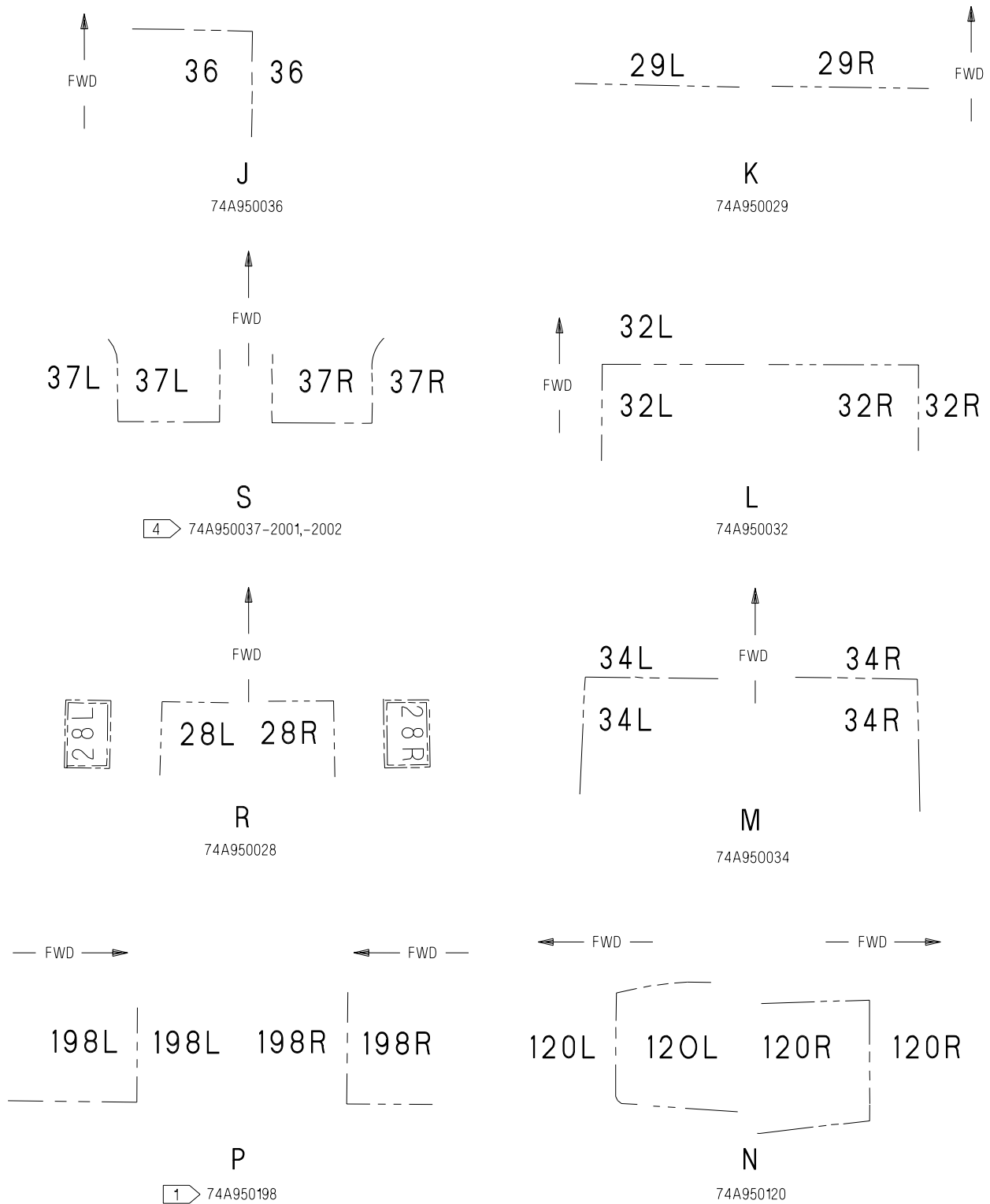


Figure 2. Door Markings (Sheet 5)

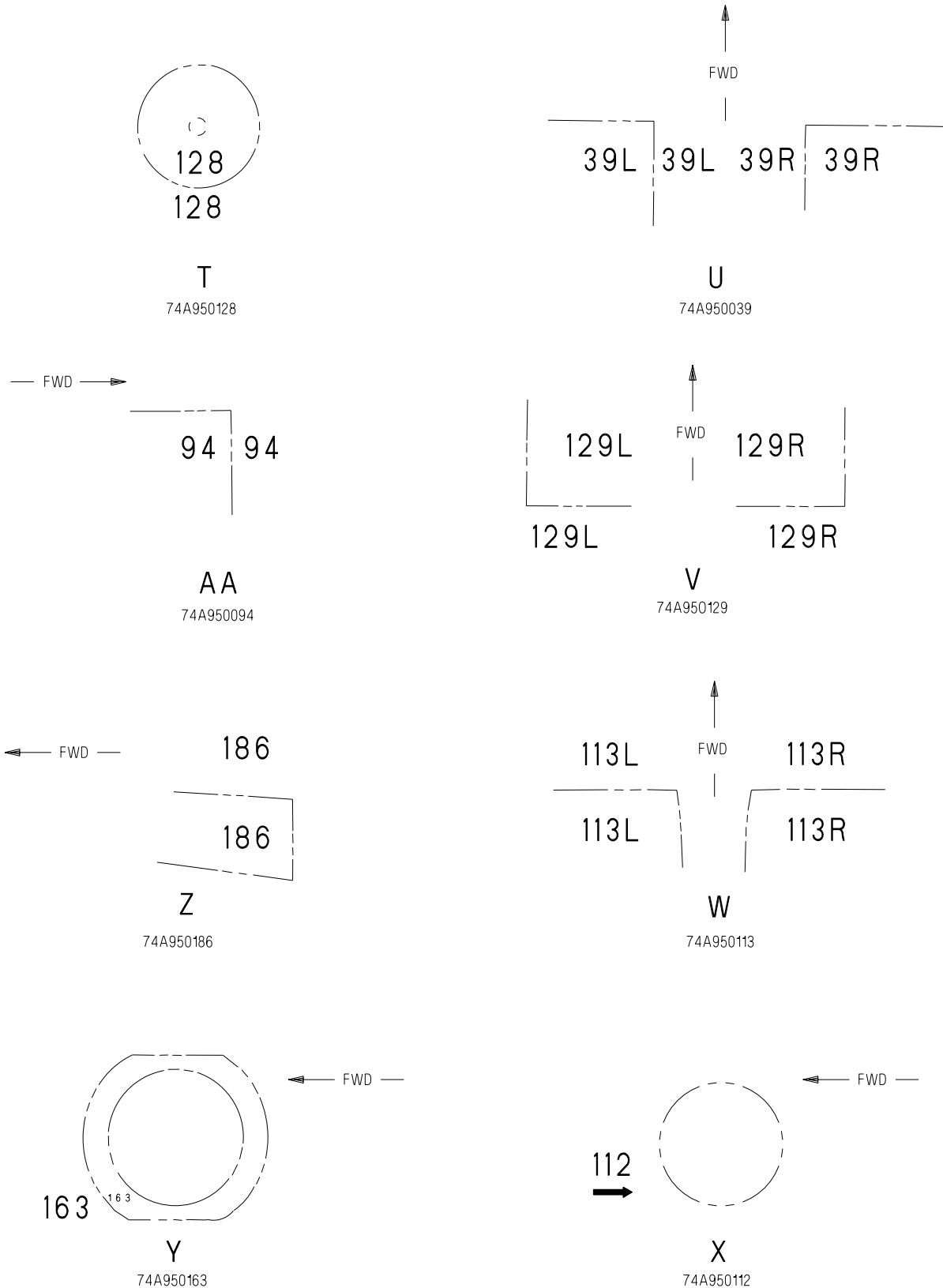


Figure 2. Door Markings (Sheet 6)

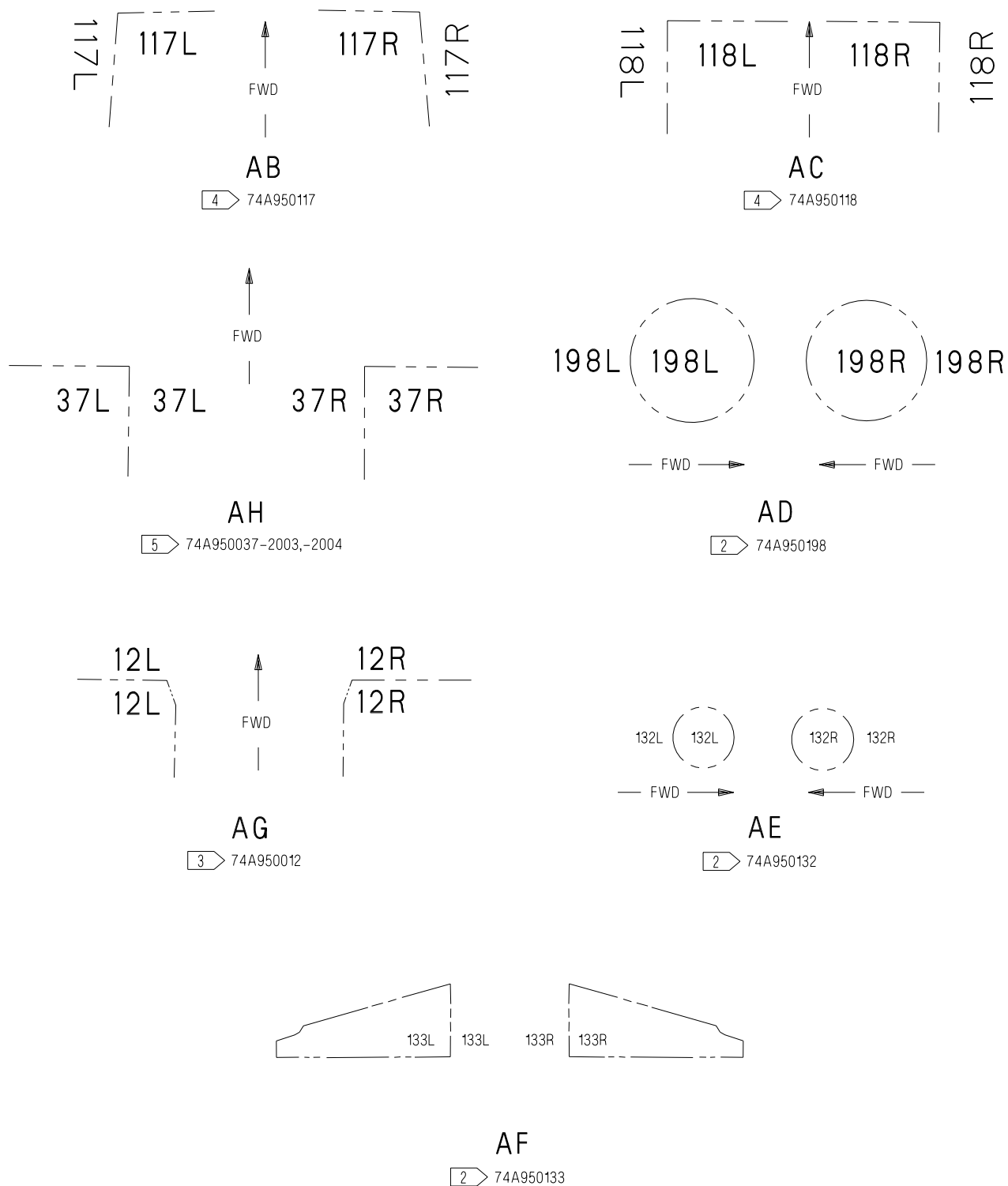
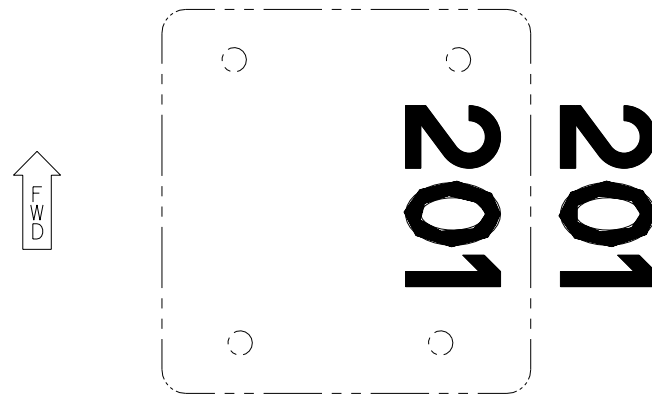


Figure 2. Door Markings (Sheet 7)



AJ

6 74A950201

LEGEND

- 1 161353 THRU 161743.
- 2 161744 AND UP.
- 3 162826 AND UP.
- 4 161353 THRU 163782.
- 5 163985 AND UP.
- 6 164627 AND UP.

Figure 2. Door Markings (Sheet 8)

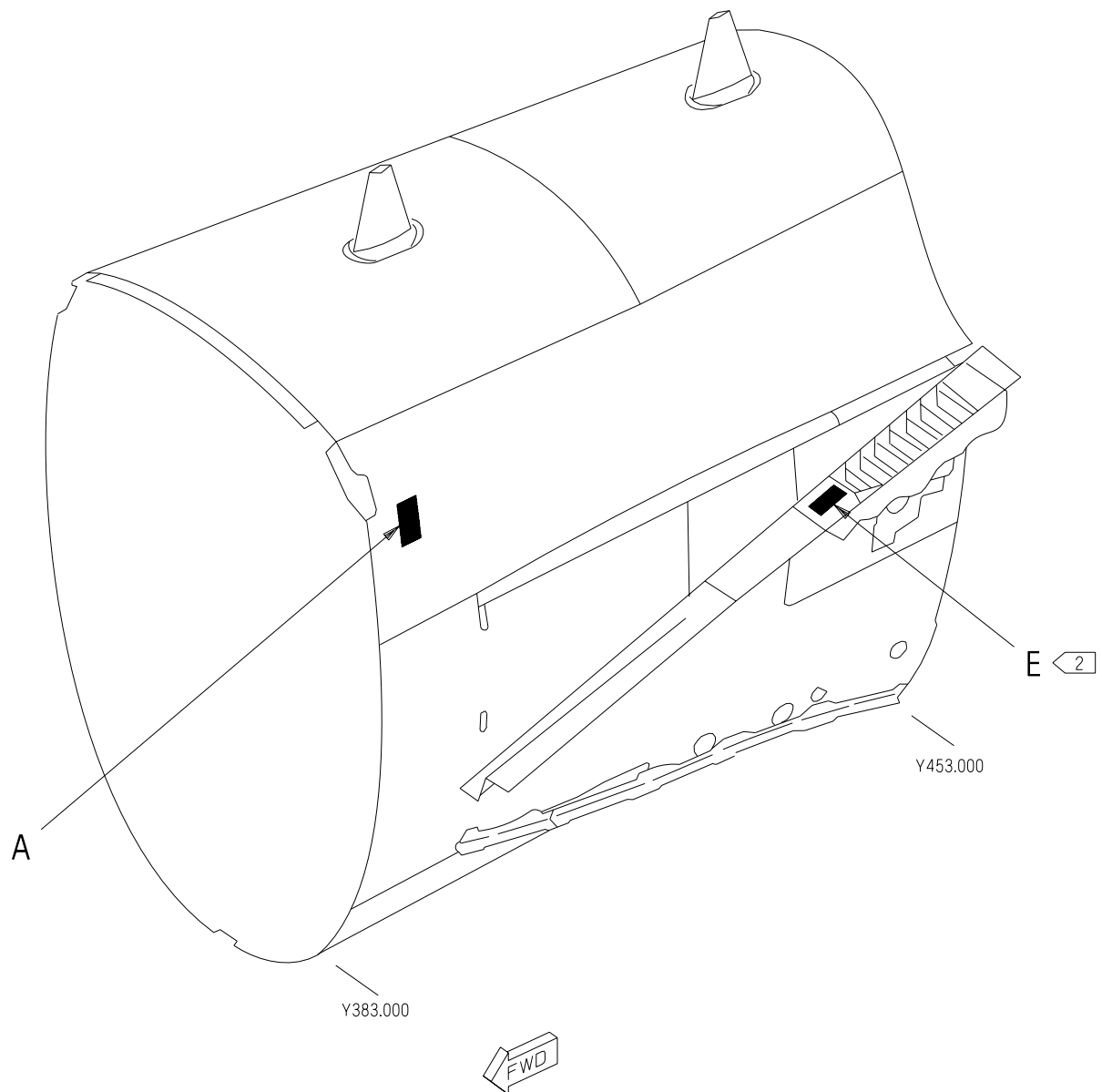


Figure 3. Instructional Markings (Sheet 1)

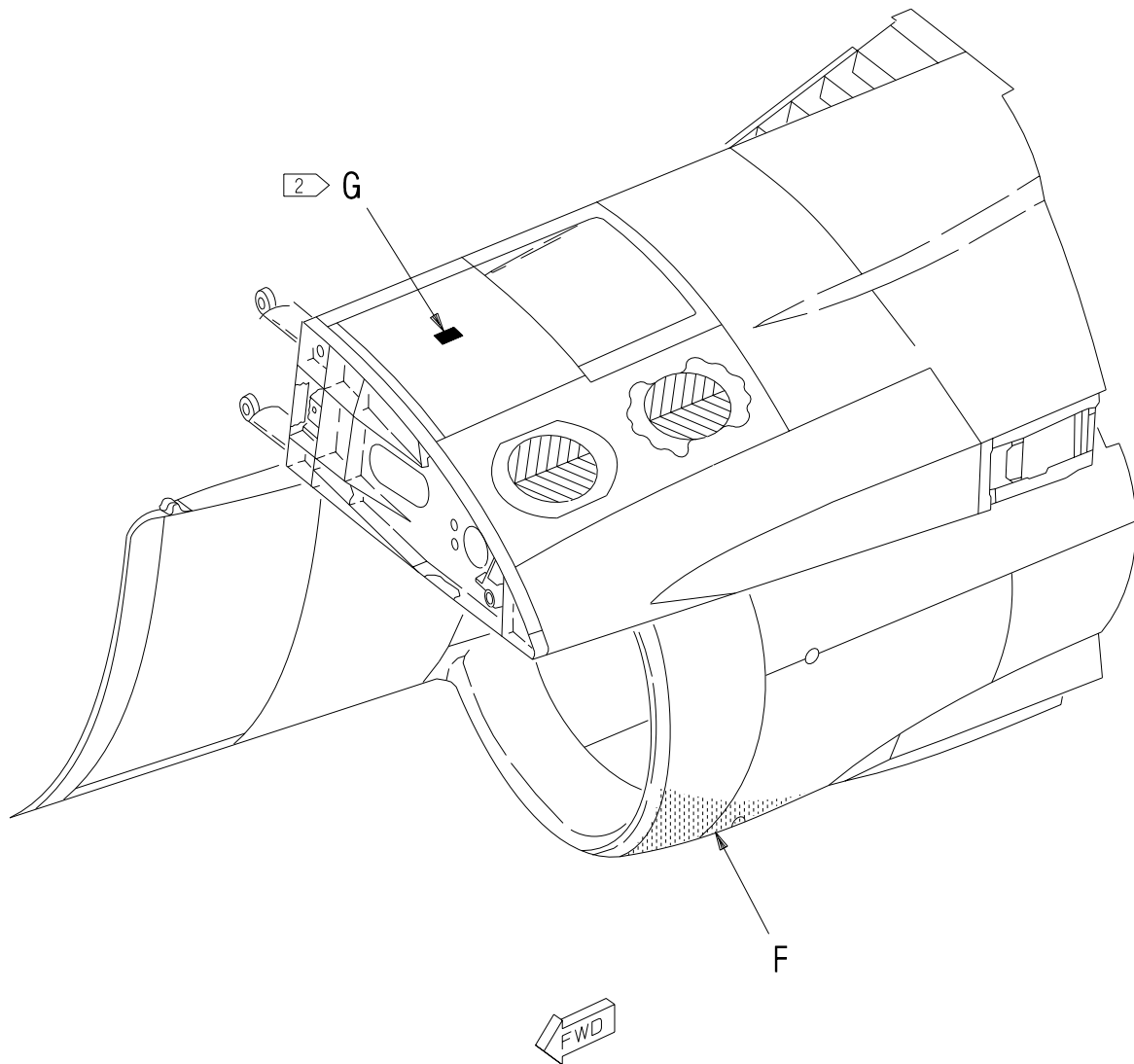
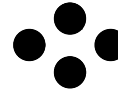


Figure 3. Instructional Markings (Sheet 3)



A

74A950334



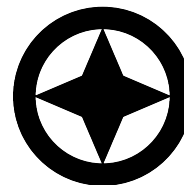
B

74A950338

NO STEP

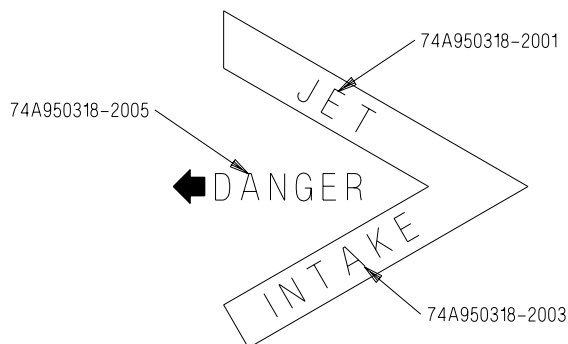
G

74A950304



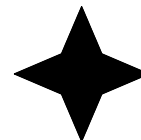
C

74A950356



F

1 74A950379-2005, -2006



D

74A950357

WARNING
HOT AIR EXHAUST

E

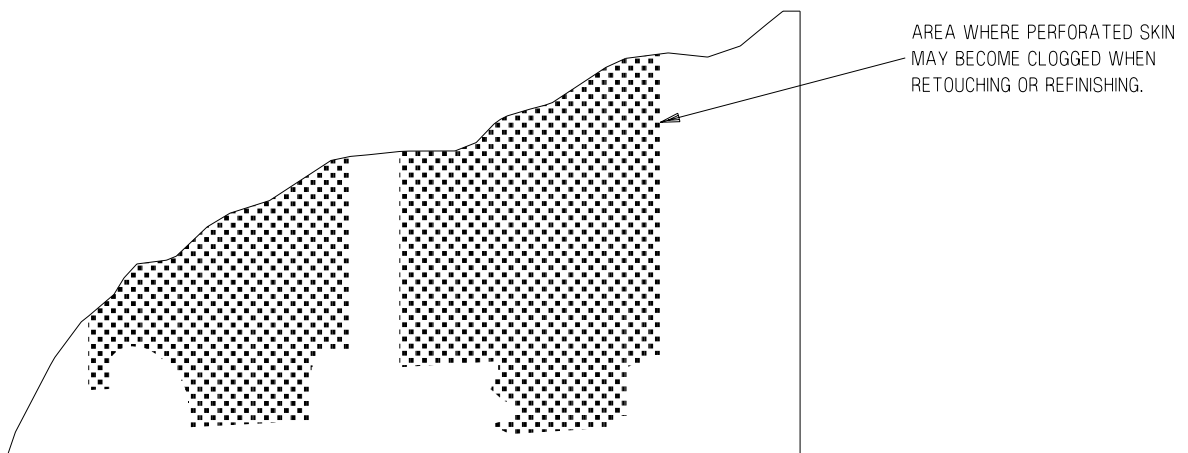
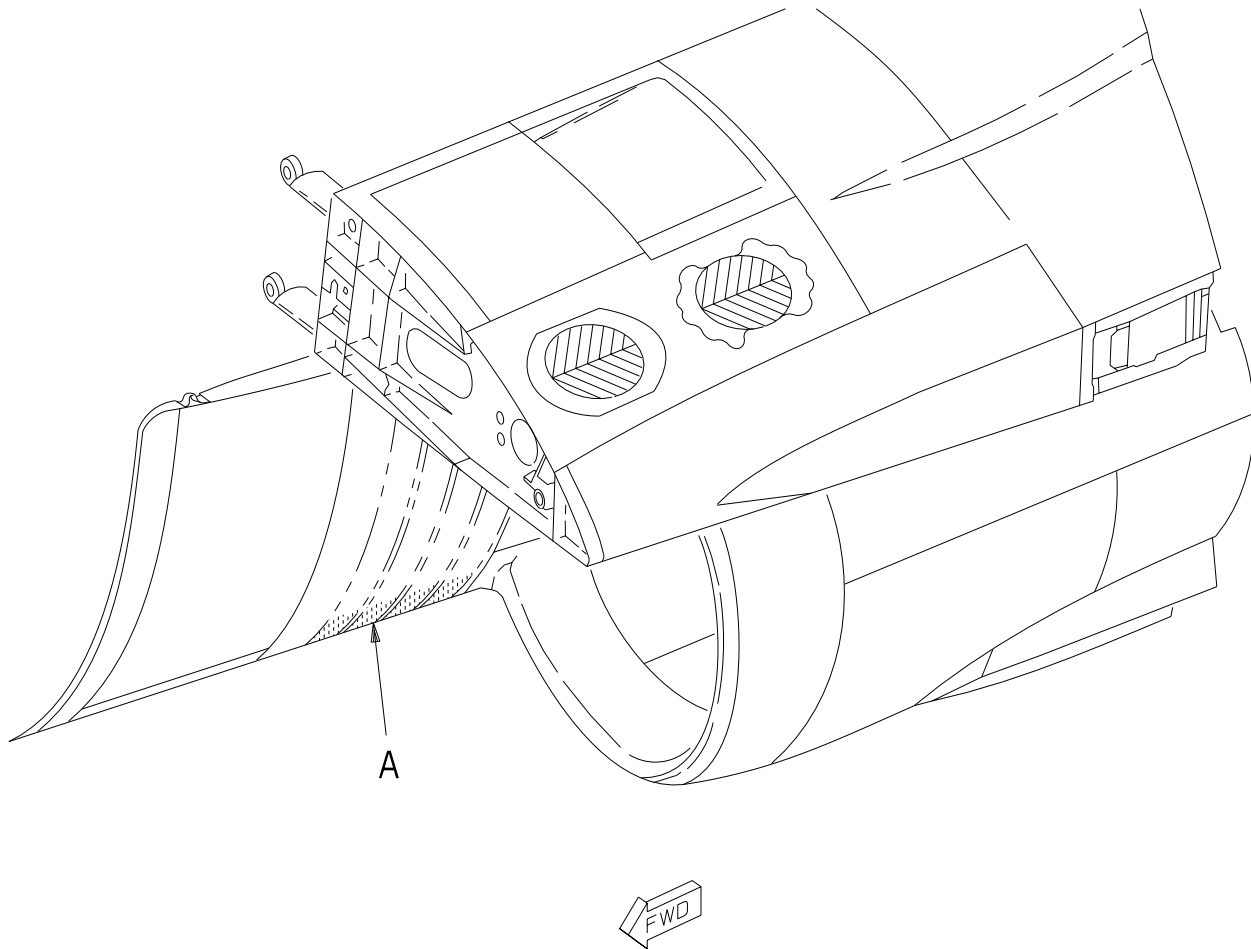
74A950330

LEGEND

1 164645 AND UP.

2 TYPICAL LEFT AND RIGHT SIDE.

Figure 3. Instructional Markings (Sheet 4)



A

Figure 4. Perforated Skin Maintenance, Engine Inlet Ramp

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

AFT CENTER FUSELAGE CORROSION PRONE AREAS

Reference Material

| | |
|---|------------------|
| Structure Repair, Center Fuselage | A1-F18AE-SRM-700 |
| Structure Group Index | WP001 01 |
| Aft Center Fuselage Bulkheads and Formers..... | WP017 00 |
| Structural Repair | A1-F18AC-SRM-200 |
| Adhesives, Cement, and Sealant; Preparation and Application | WP011 00 |
| Structure Repair, Center Fuselage | A1-F18AC-SRM-230 |
| Structure Group Index | WP001 01 |
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning..... | WP006 00 |
| Stripping..... | WP007 00 |
| Chemical Treatment..... | WP008 00 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Aft Center Fuselage Finish System and Markings | WP033 00 |

Alphabetical Index

| Subject | Page No. |
|--|----------|
| Description | 2 |
| Chemical Treatment | 2 |
| Classification of Critical Item/Areas | 2 |
| Cleaning..... | 2 |
| Corrosion Damage Evaluation and Limits | 2 |
| Corrosion Damage Repair | 2 |
| Corrosion Inspection..... | 2 |
| Corrosion Prone Areas..... | 2 |
| Corrosion Removal..... | 2 |
| Finish System and Markings..... | 2 |
| Stripping..... | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The aft center fuselage, extends from fuselage station Y453.000 to fuselage station Y557.500. Structure and skins are aluminum, graphite epoxy and titanium. Finish system is primer and polyurethane coatings.

3. **CORROSION PRONE AREAS.** See figures 1, 2, 3, 4, 5, and 6.

- a. Dissimilar metal contact.
- b. Water intrusion/entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Finish system/protection system damage.

4. **CORROSION INSPECTION.** (WP005 00).

a. Mold line and internal structural surfaces, see figures 1, 2, 3, and 4.

(1) The sealant system for cuts, chafing, tears, or missing sections.

(2) The finish system for damage/deterioration.

(3) Doors, covers, skins and internal structure for pitting and surface corrosion.

(4) Door sills for cleanliness and corrosion.

(5) Hinge halves for wear or damage.

5. **CLEANING.** (WP006 00).

6. **STRIPPING.** (WP007 00).

7. **CORROSION REMOVAL.** (WP005 00).

8. **CHEMICAL TREATMENT.** (WP008 00).

9. **FINISH SYSTEM AND MARKINGS.** (WP033 00).

10. **CLASSIFICATION OF CRITICAL ITEM/AREAS.** (A1-F18AC-SRM-230, WP001 01 or A1-F18AE-SRM-700, WP001 01).

11. **CORROSION DAMAGE EVALUATION AND LIMITS.** (A1-F18AC-SRM-230, WP001 01 or A1-F18AE-SRM-700, WP001 01).

12. **CORROSION DAMAGE REPAIR.** Corrosion has been found on substructure where EA960F adhesive is applied. Remove EA960F adhesive and replace with MIL-S-83430 sealant at organizational level.

Support Equipment Required

None

Materials Required

| Specification or Part Number | Nomenclature |
|----------------------------------|---------------------|
| - | Scraper, Plastic |
| MIL-P-85582, TY1, CL1 | Primer |
| MIL-S-83430 CLB-4 | Sealing Compound |
| MIL-C-81706, Class 1A, Form 3 | Corrosion Resistant |
| - | Mallet |



Do not damage substructure. Damage will reduce structural life limits. Corrosion or damage to substructure that exceeds limits of A1-F18AE-SRM-700, WP017 00 requires engineering disposition.

a. Remove EA960F fairing compound using plastic scraper and mallet.

b. Inspect metal substructure for corrosion damage.

c. Remove corrosion if required (WP005 00).

WARNING

Corrosion conversion coating is toxic. Avoid breathing of vapors. Avoid contact with skin or eyes. Wear gloves and goggles while handling. If eye contact is made, wash immediately with large amount of water. If skin contact is made, wash immediately with soap and water.

c. If no evidence of corrosion is observed, apply MIL-C-81706 chemical conversion coating to exposed substructure (WP008 00).

WARNING

MIL-P-85582 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

d. Apply MIL-P-85582 Type 1 Class 1 primer (WP011 00).

WARNING

Sealing compound is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

e. Apply MIL-S-83430 sealant over area where EA960F was removed. Smooth flush to moldline and cure (A1-F18AC-SRM-200, WP011 00).

f. Apply primer on moldline surfaces (WP011 00).

g. Refinish repair area (WP012 00).

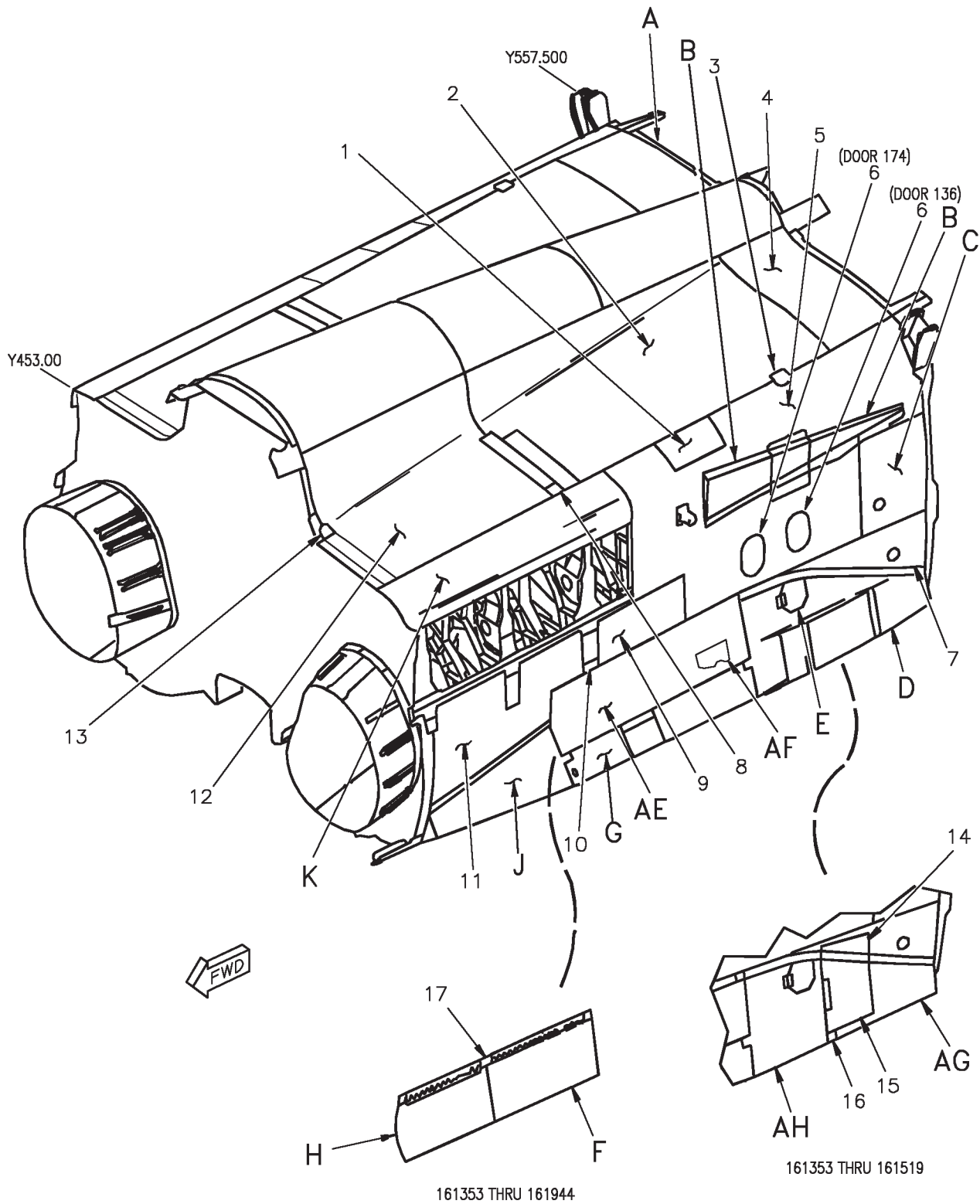


Figure 1. Skins, Doors, and Covers (Sheet 1)

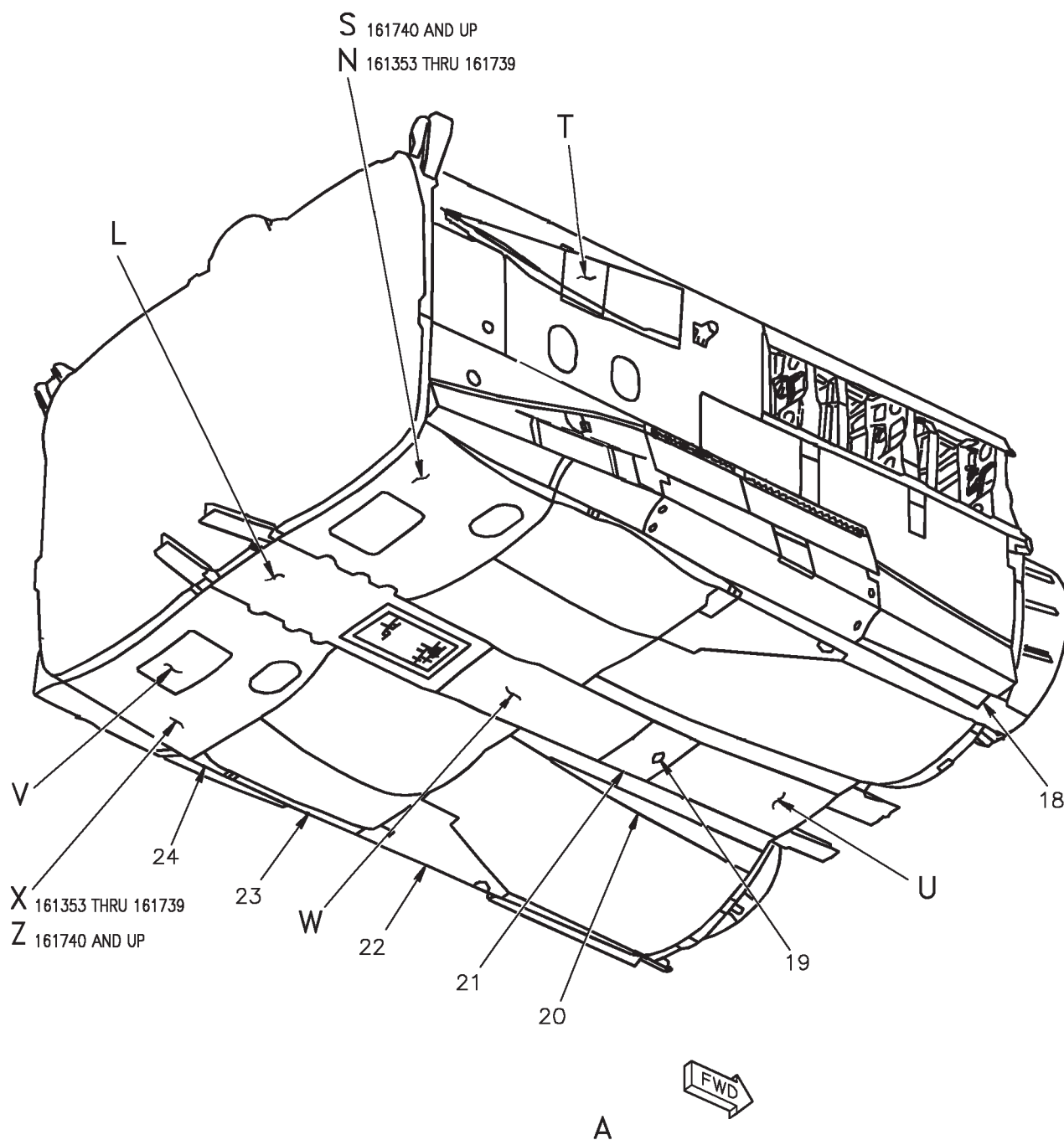


Figure 1. Skins, Doors, and Covers (Sheet 2)

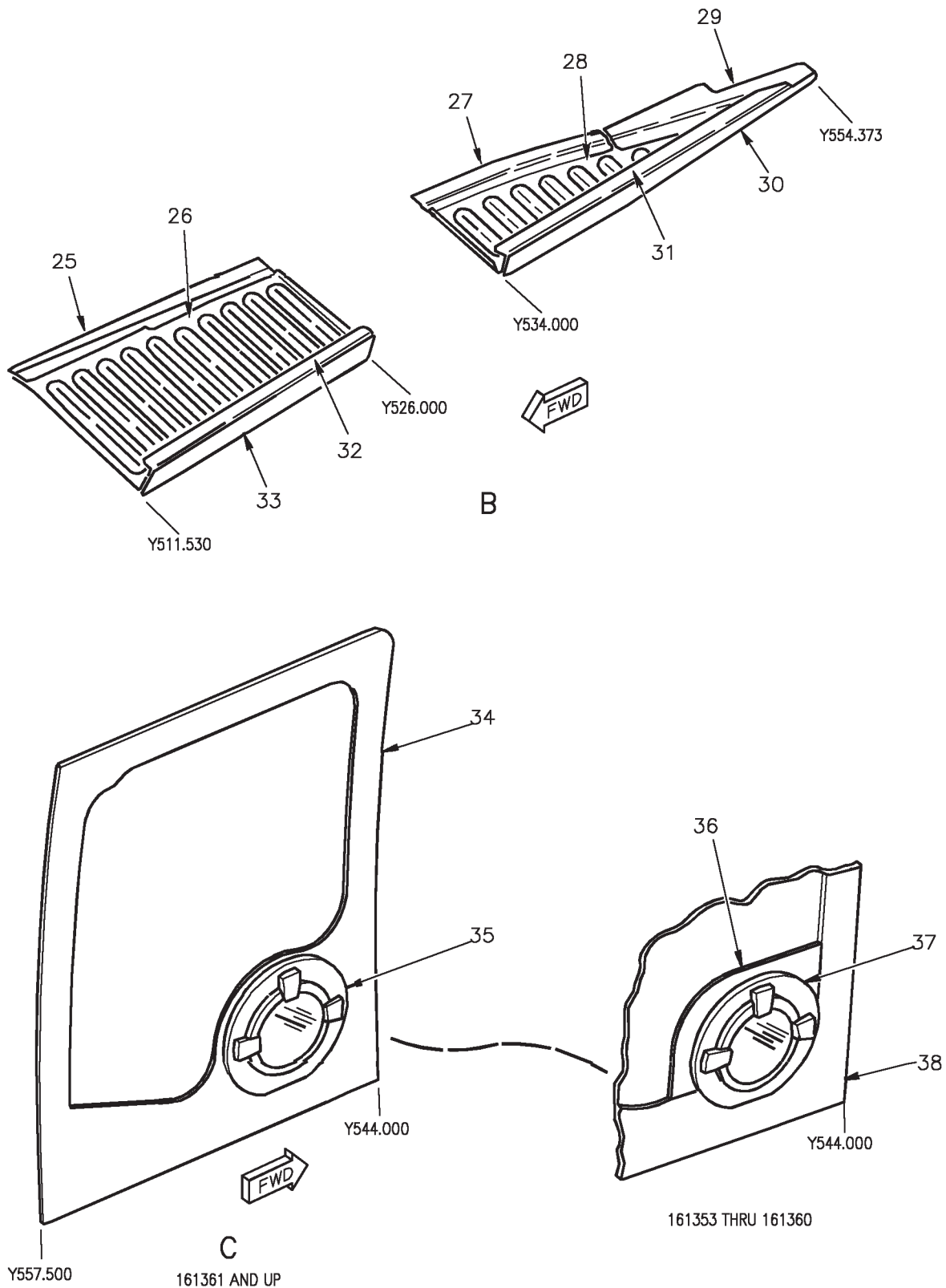


Figure 1. Skins, Doors, and Covers (Sheet 3)

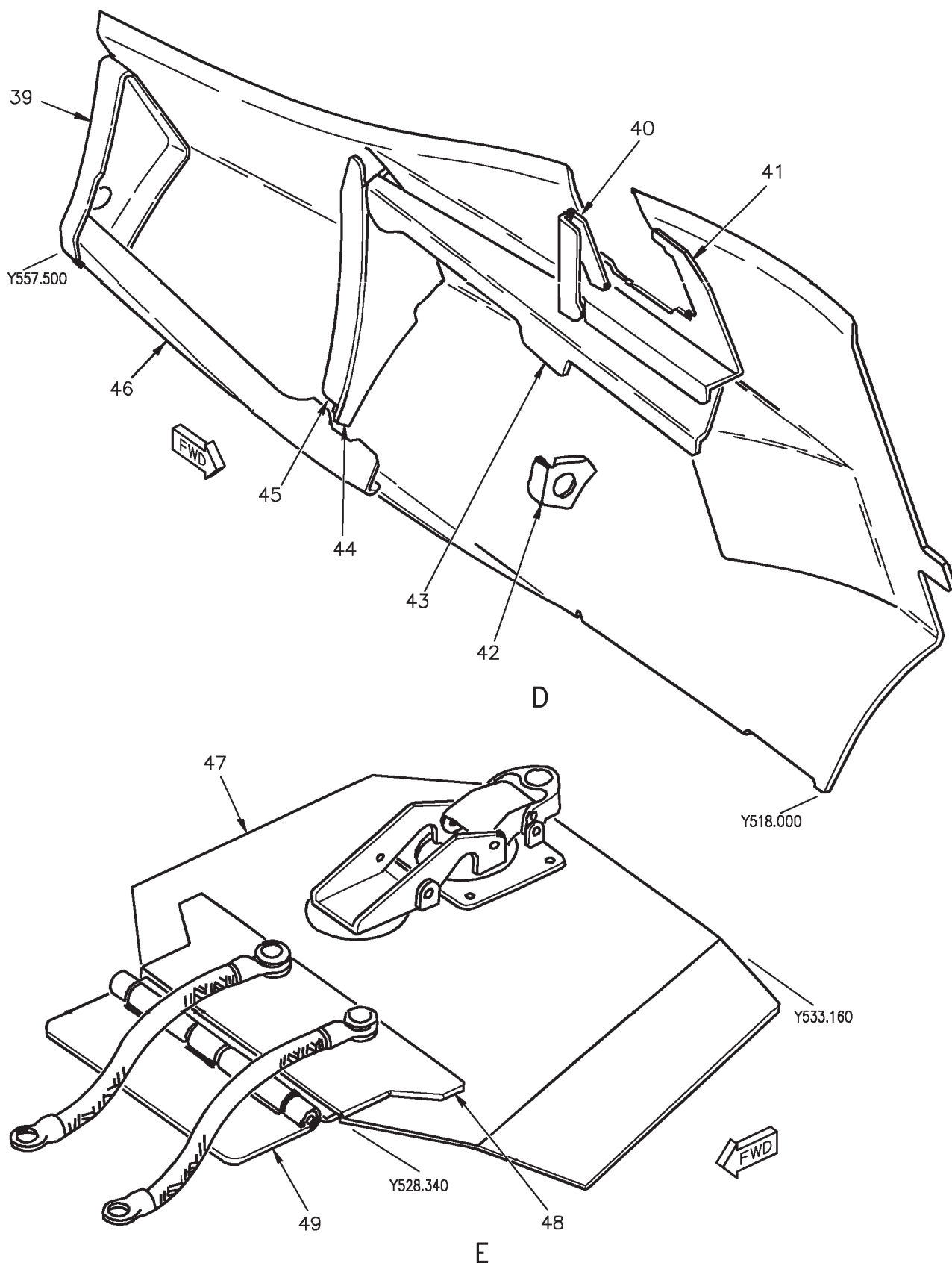


Figure 1. Skins, Doors, and Covers (Sheet 4)

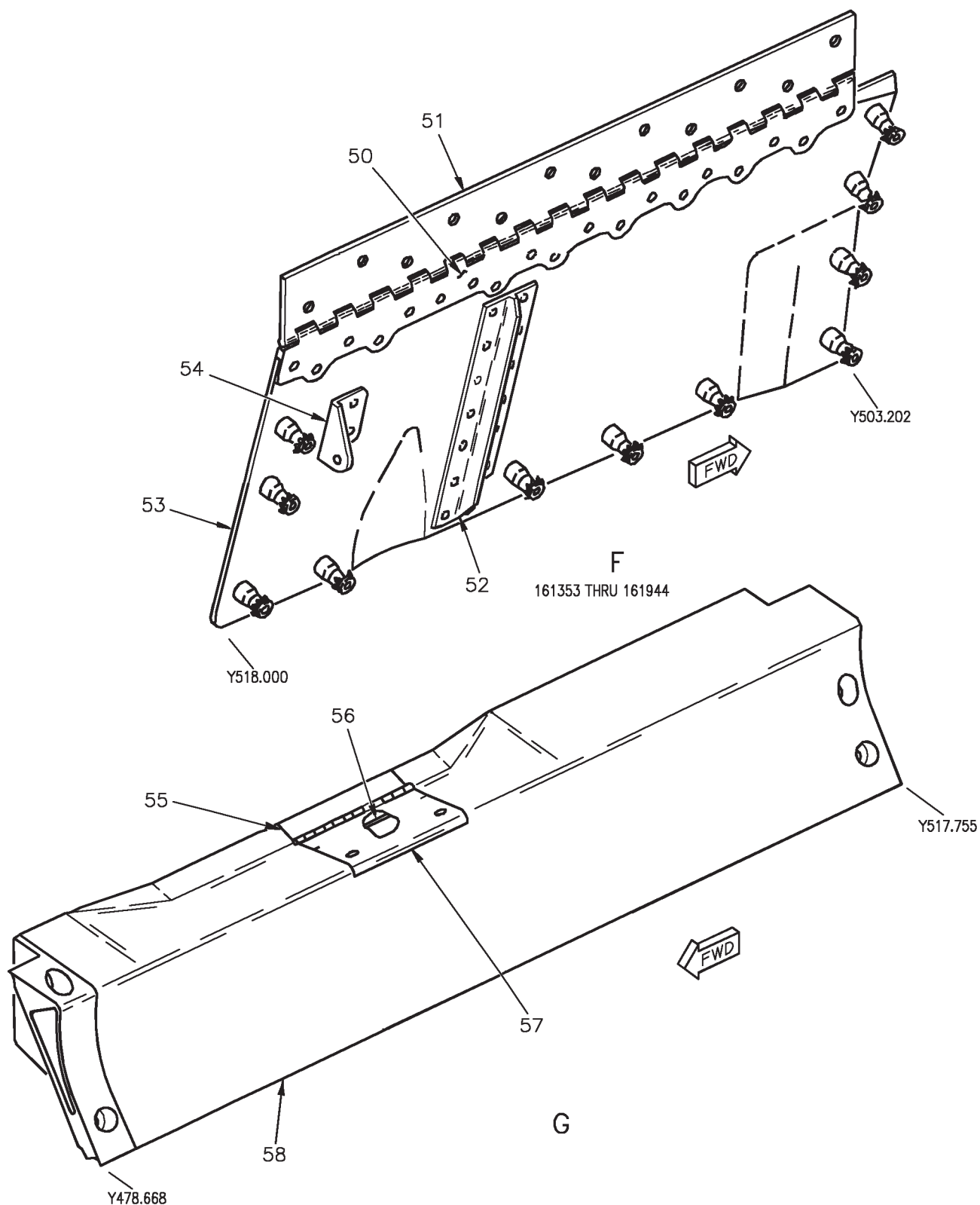
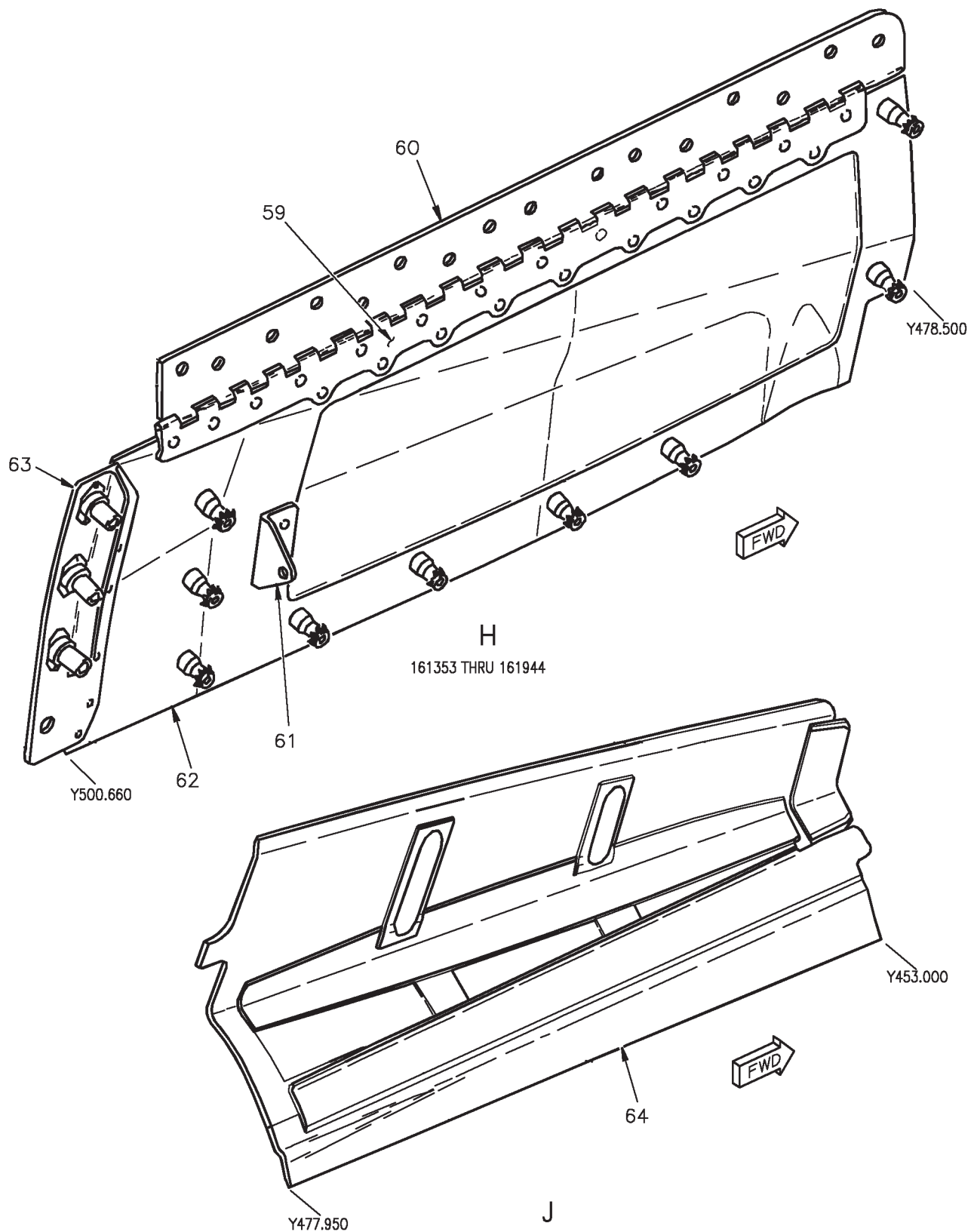


Figure 1. Skins, Doors, and Covers (Sheet 5)



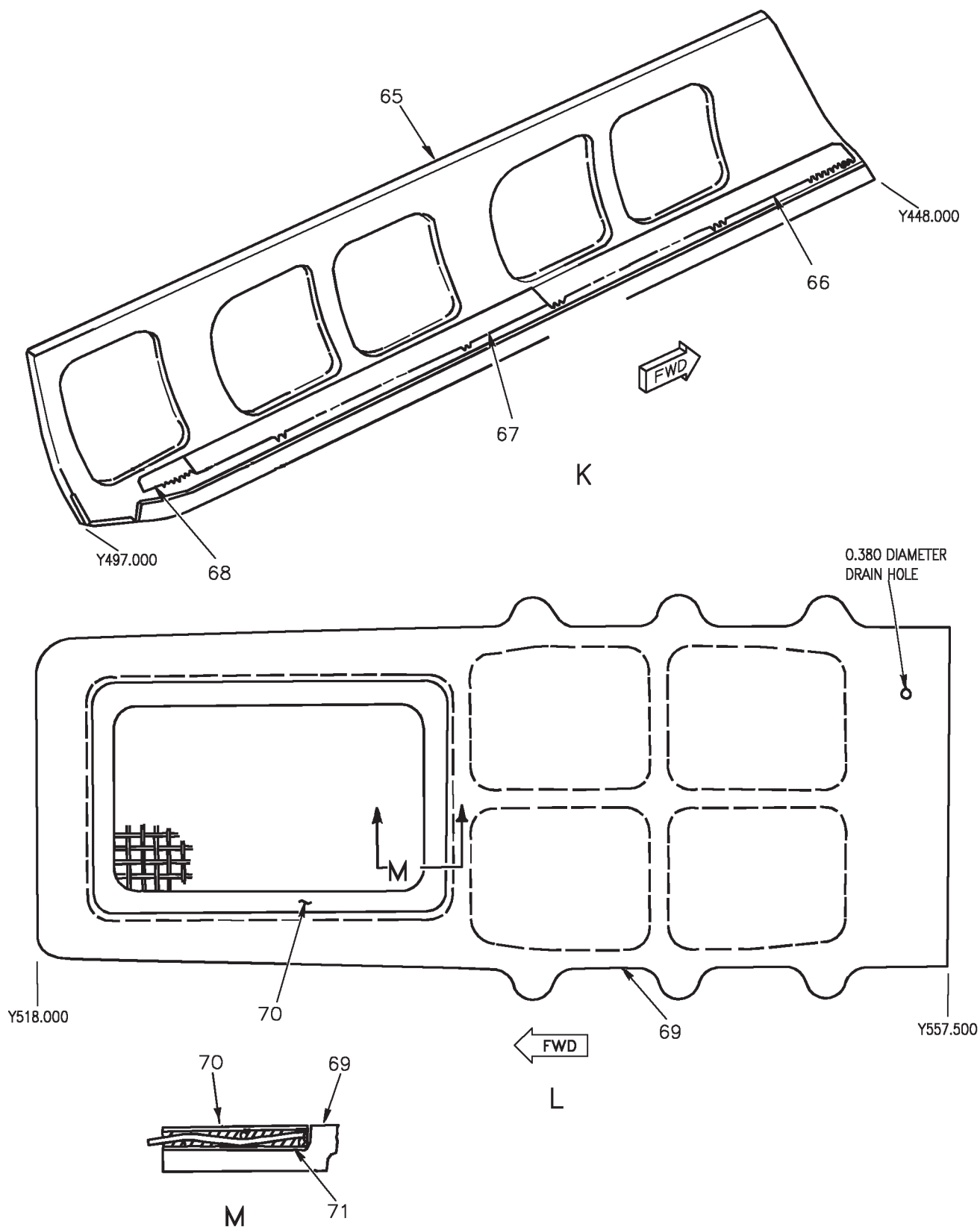


Figure 1. Skins, Doors, and Covers (Sheet 7)

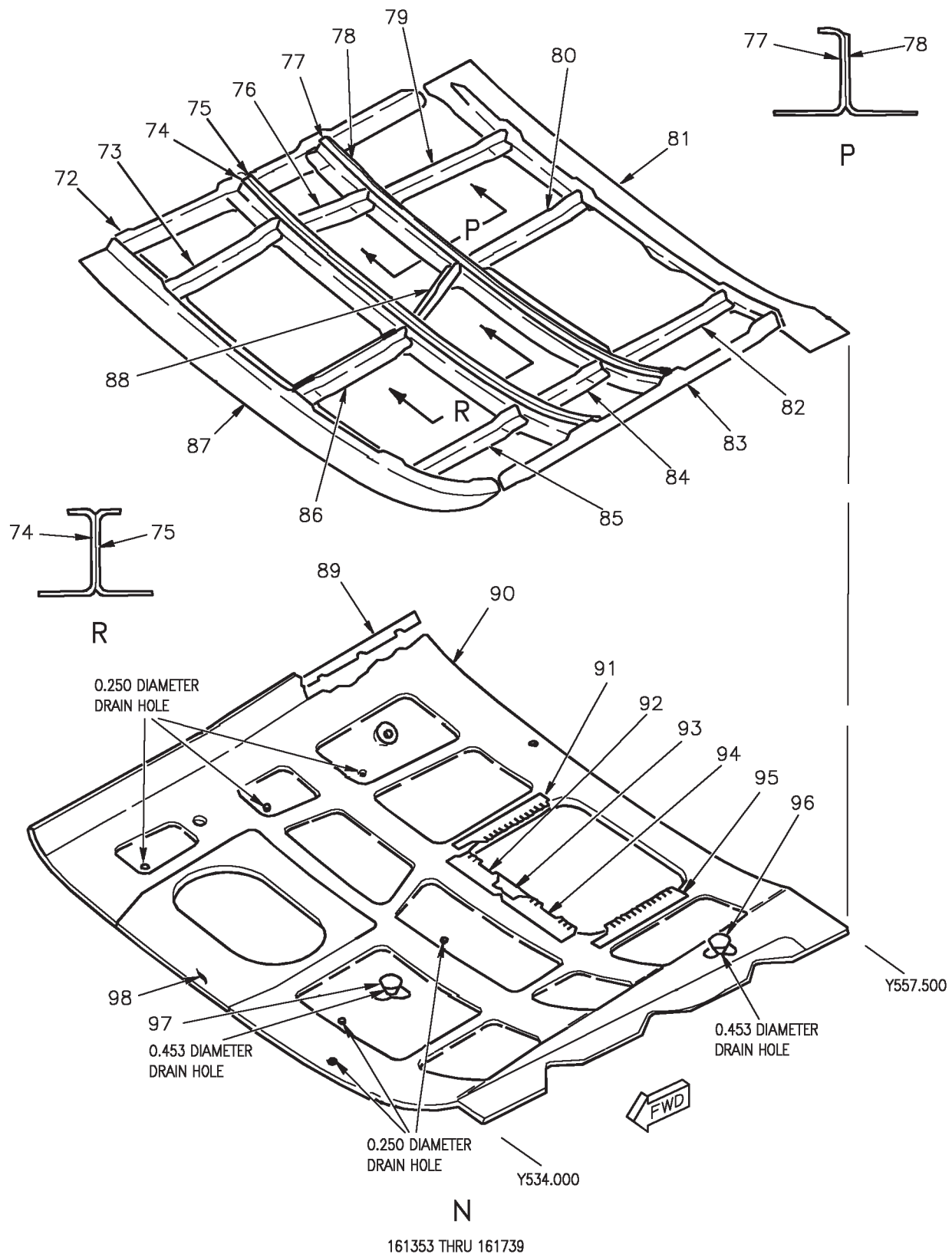


Figure 1. Skins, Doors, and Covers (Sheet 8)

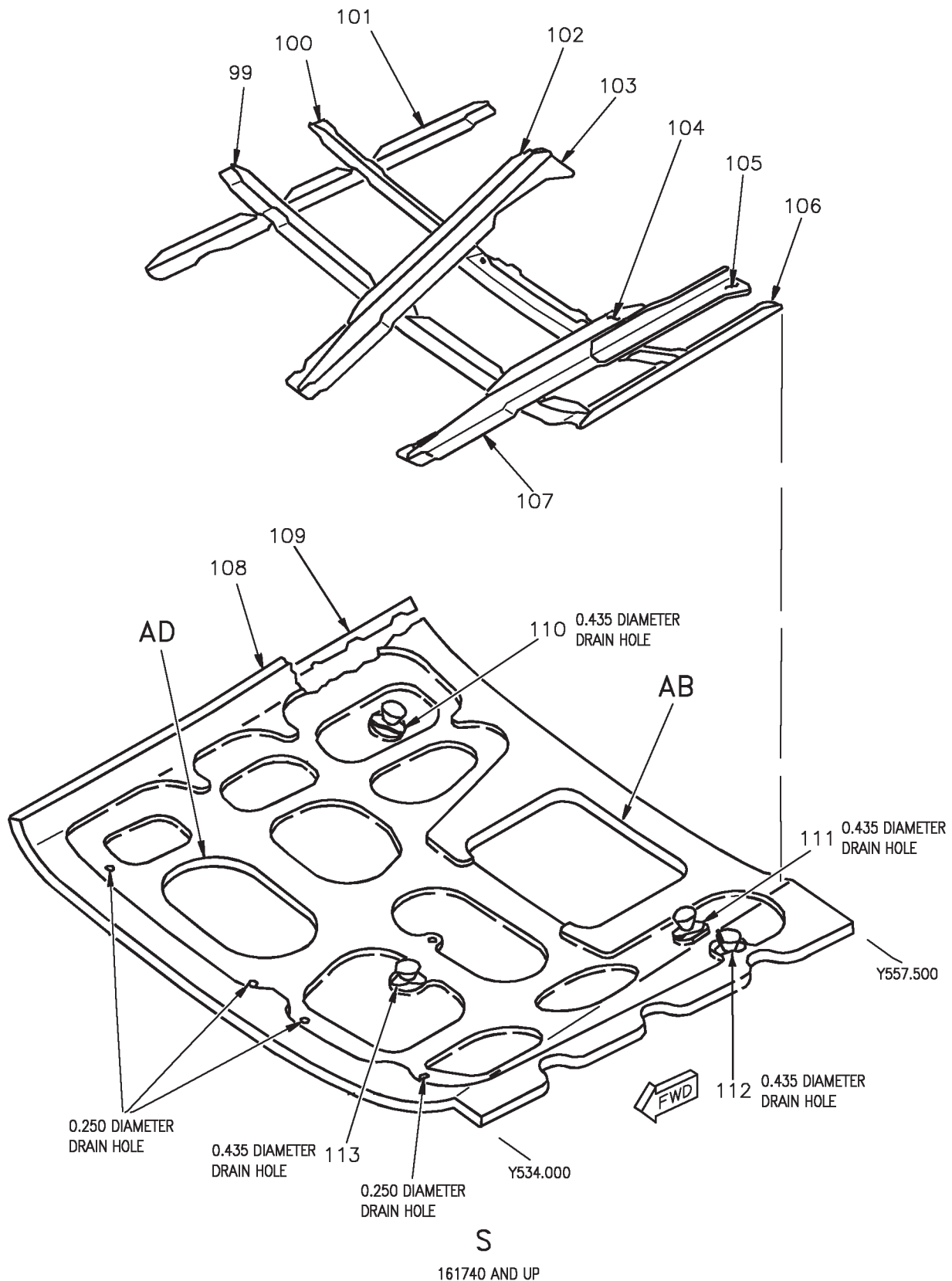


Figure 1. Skins, Doors, and Covers (Sheet 9)

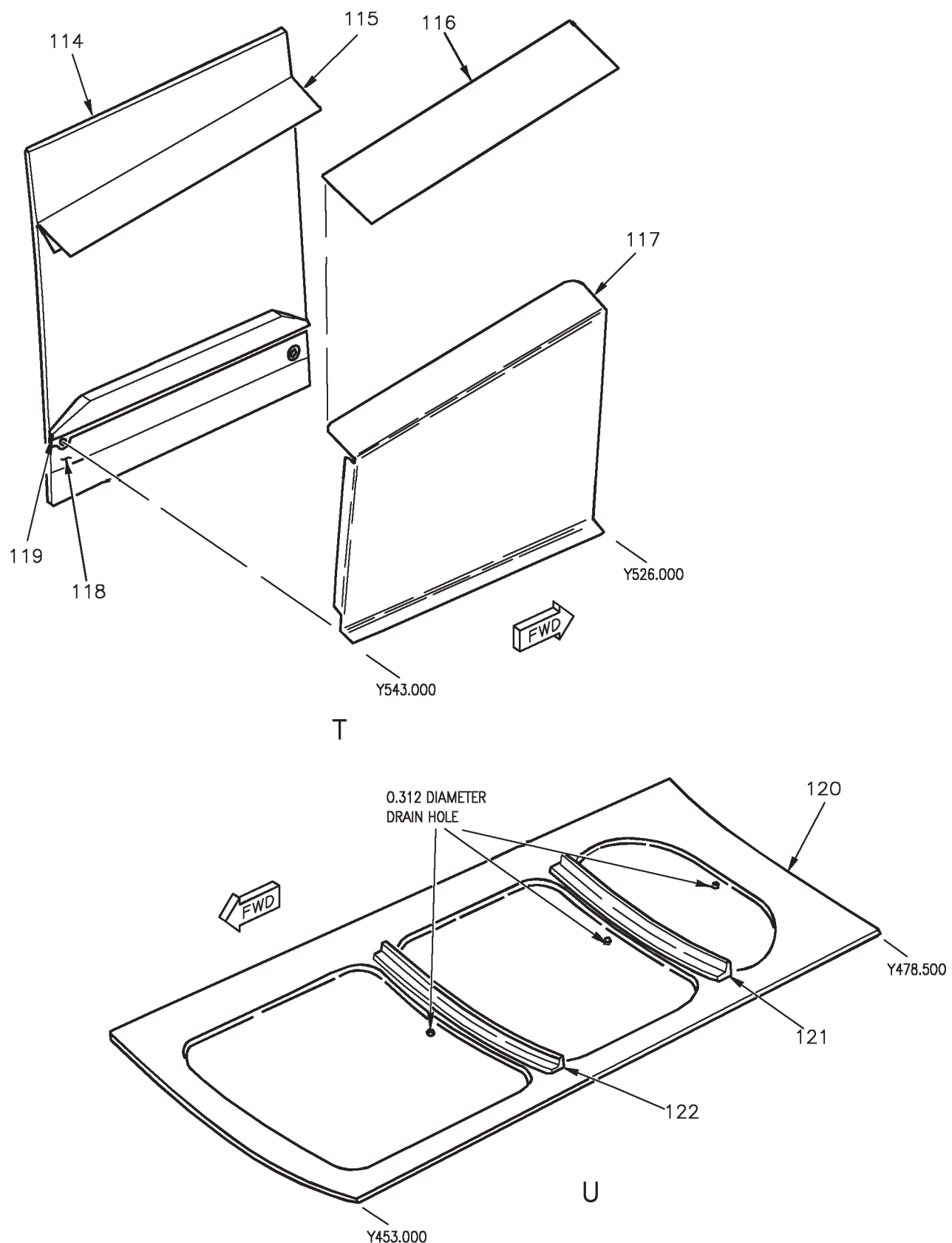


Figure 1. Skins, Doors, and Covers (Sheet 10)

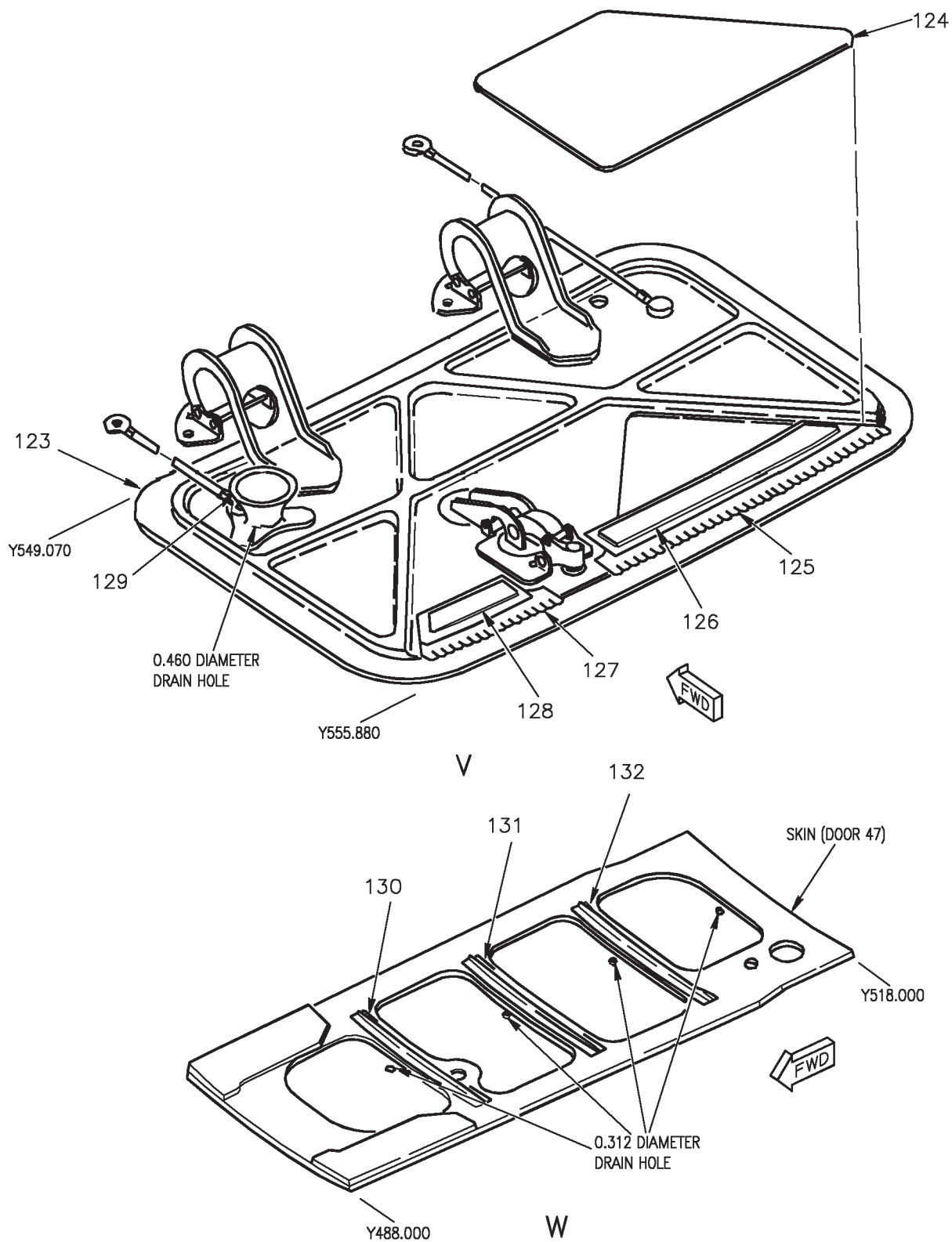


Figure 1. Skins, Doors, and Covers (Sheet 11)

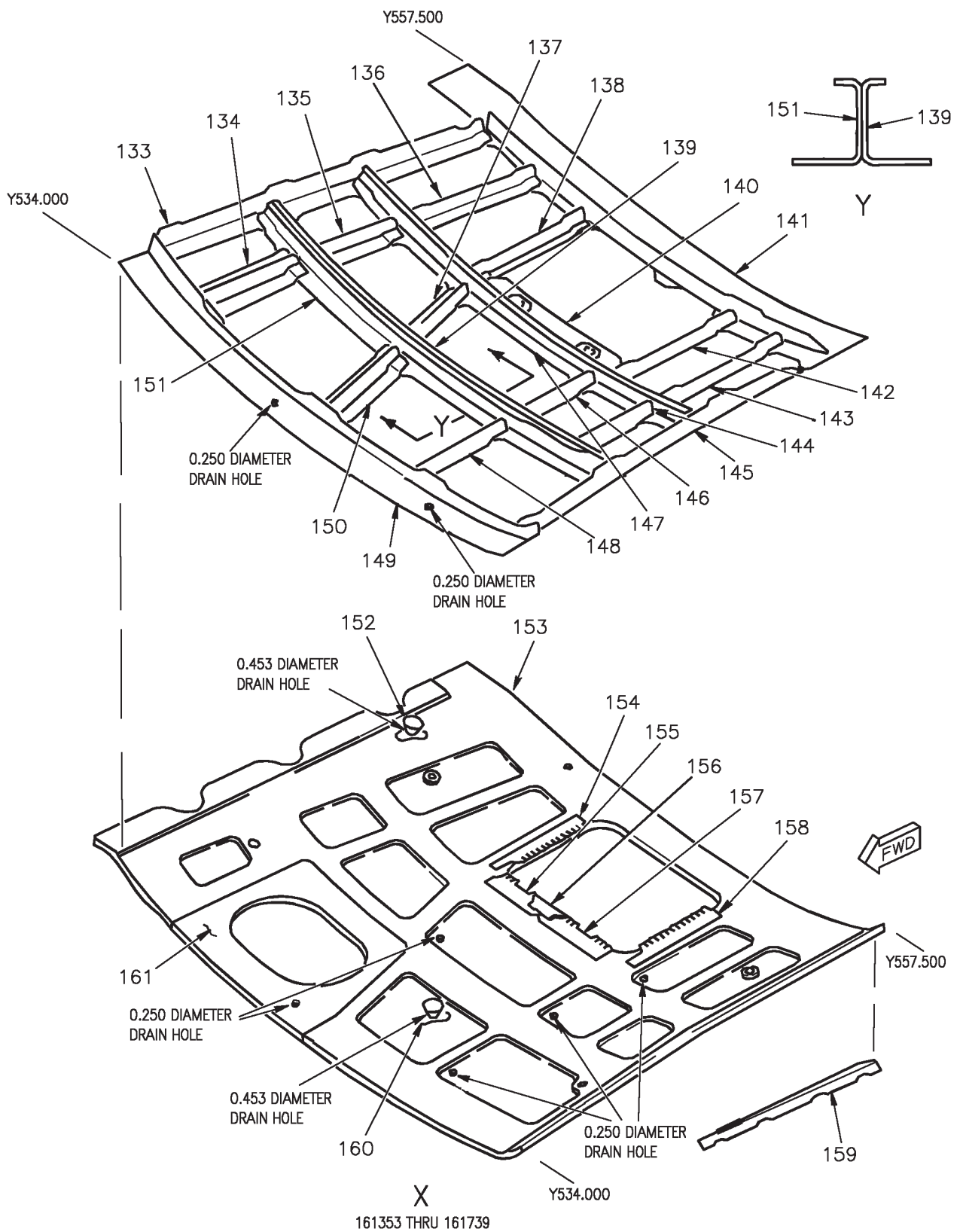


Figure 1. Skins, Doors, and Covers (Sheet 12)

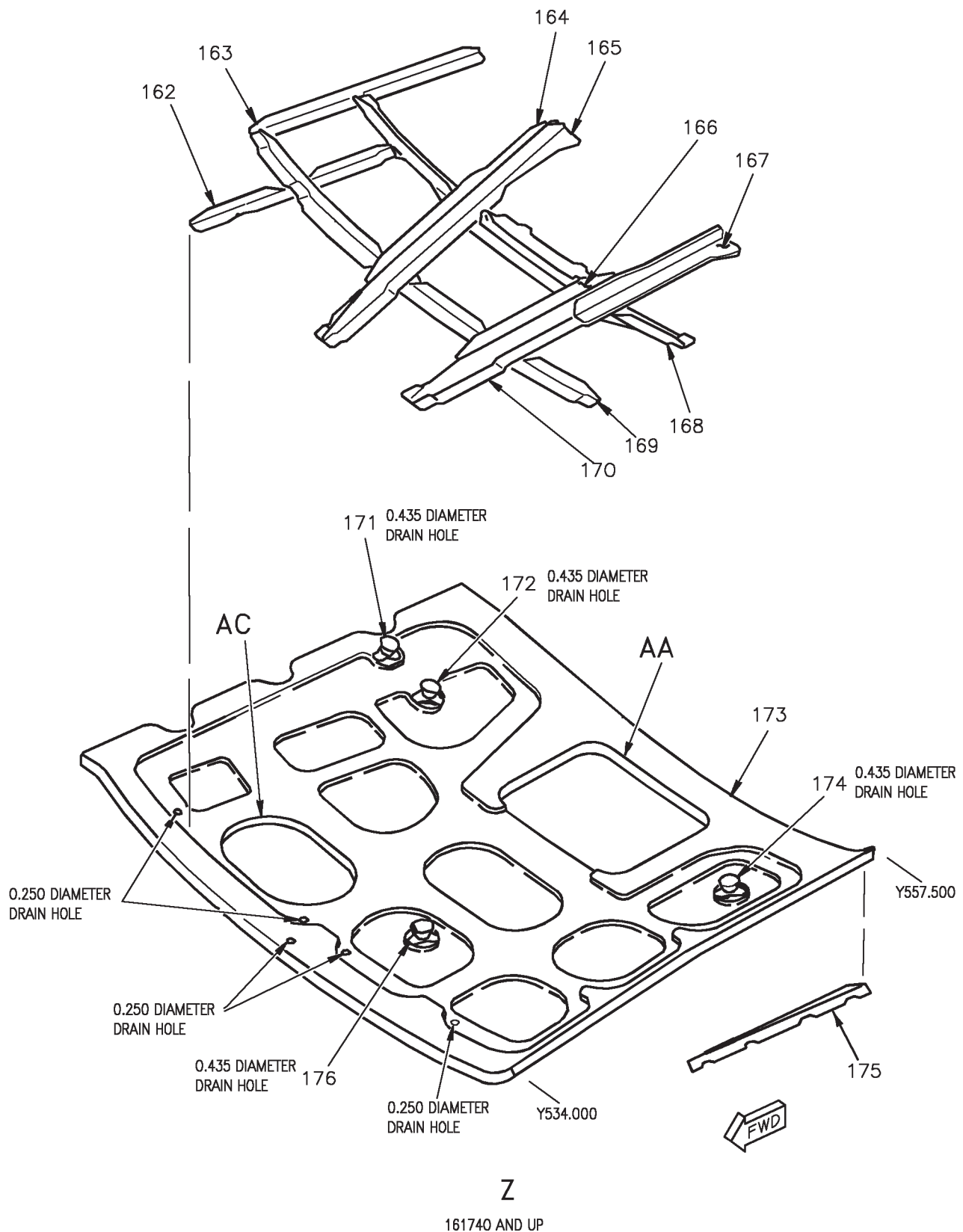


Figure 1. Skins, Doors, and Covers (Sheet 13)

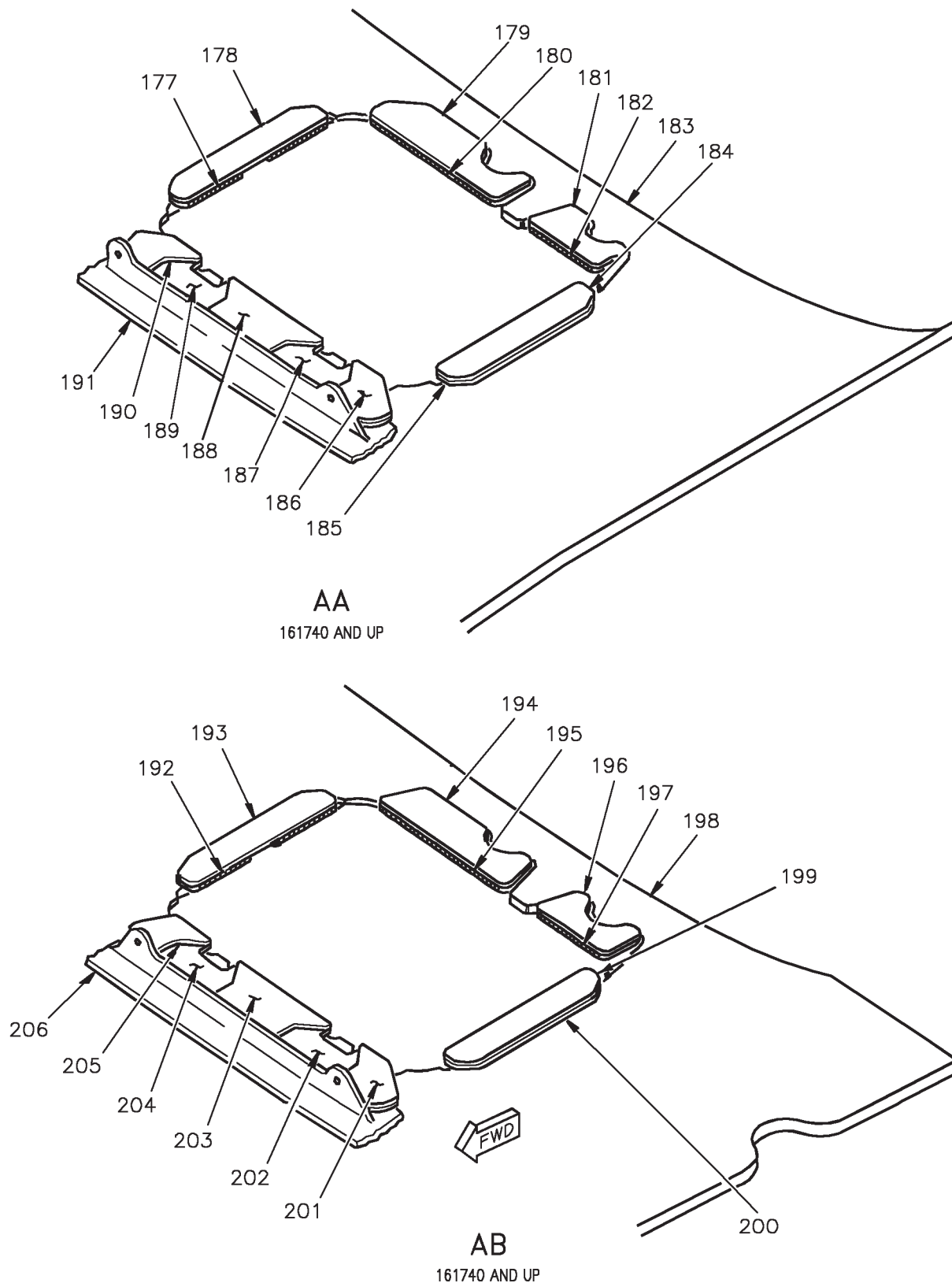


Figure 1. Skins, Doors, and Covers (Sheet 14)

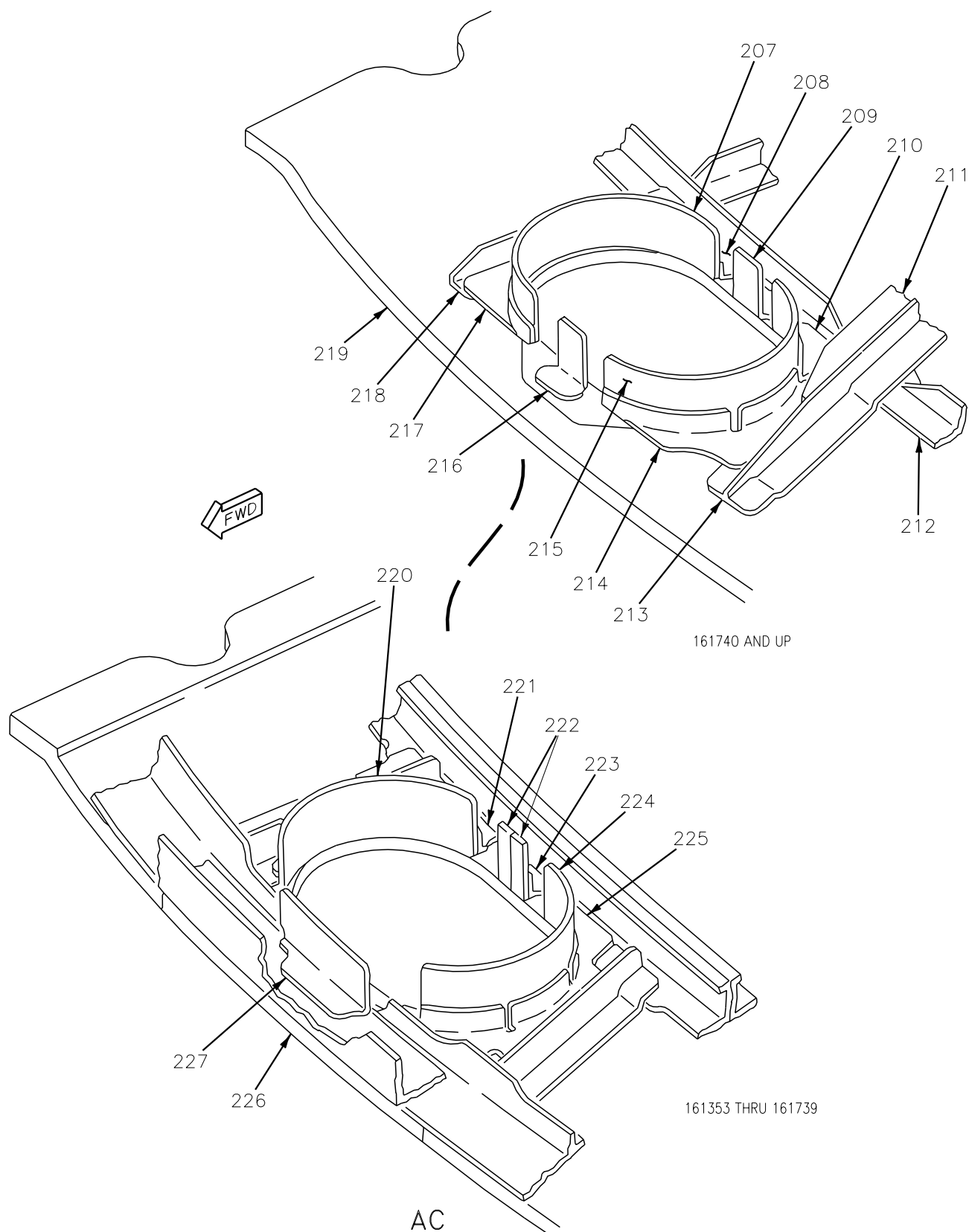


Figure 1. Skins, Doors, and Covers (Sheet 15)

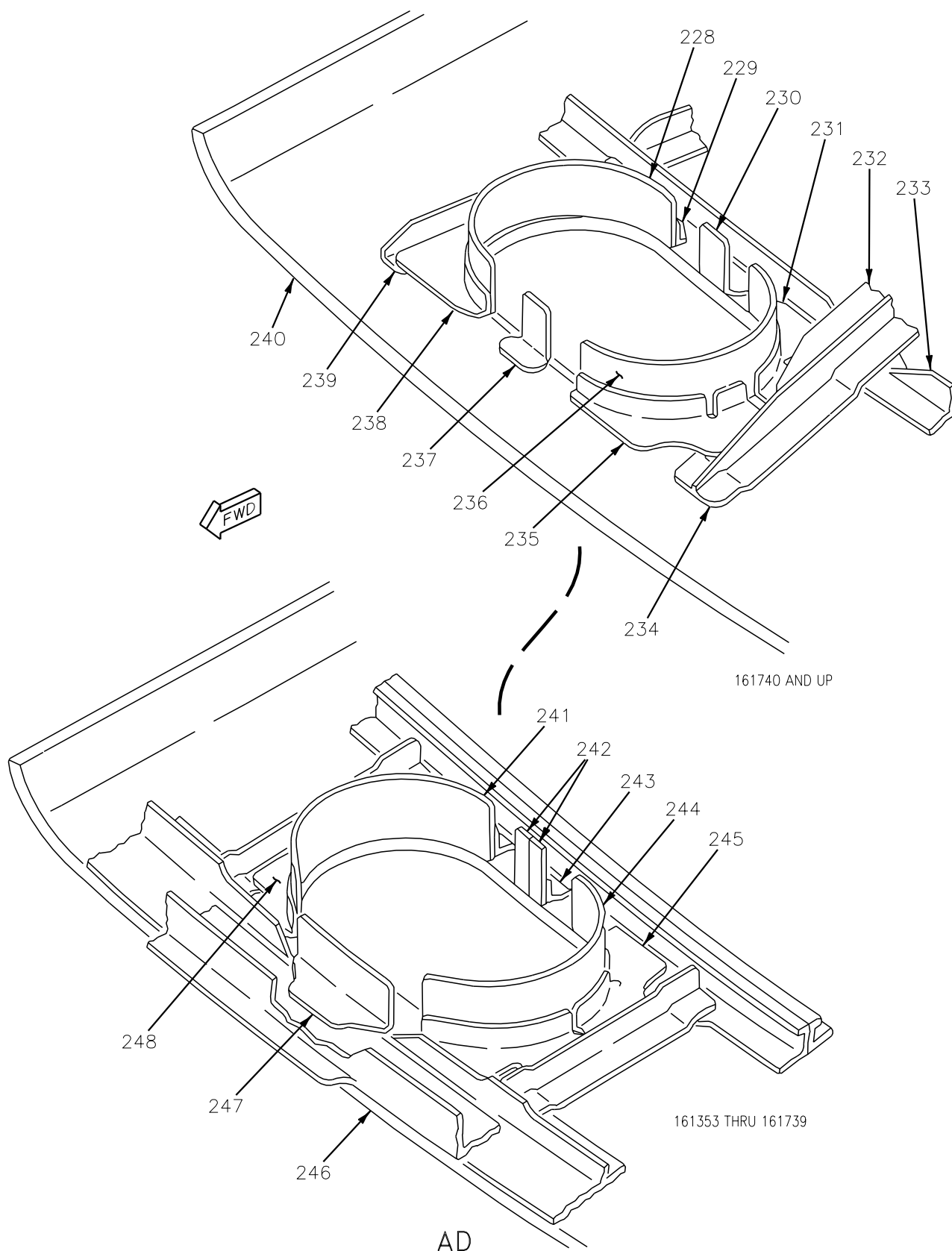


Figure 1. Skins, Doors, and Covers (Sheet 16)

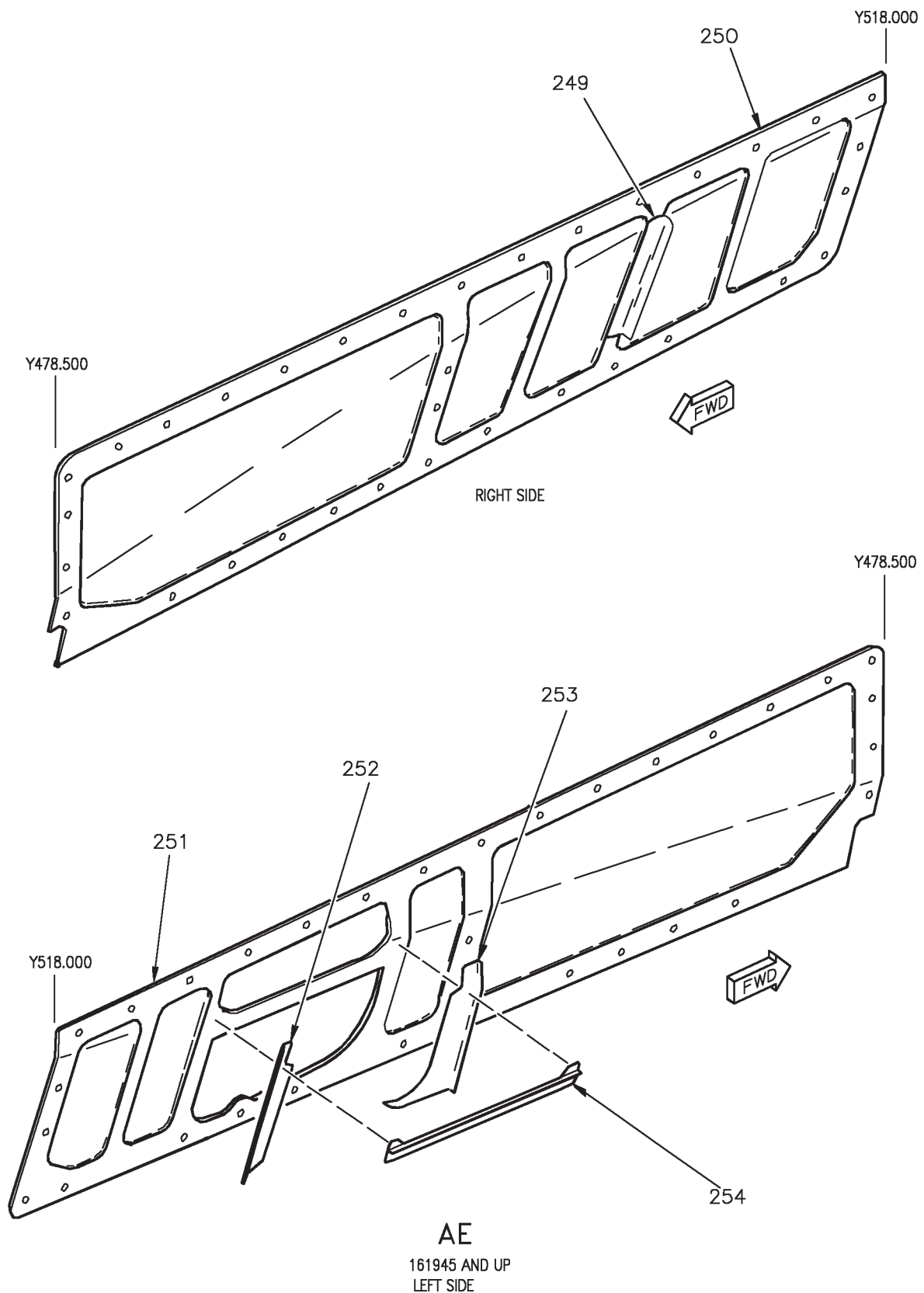
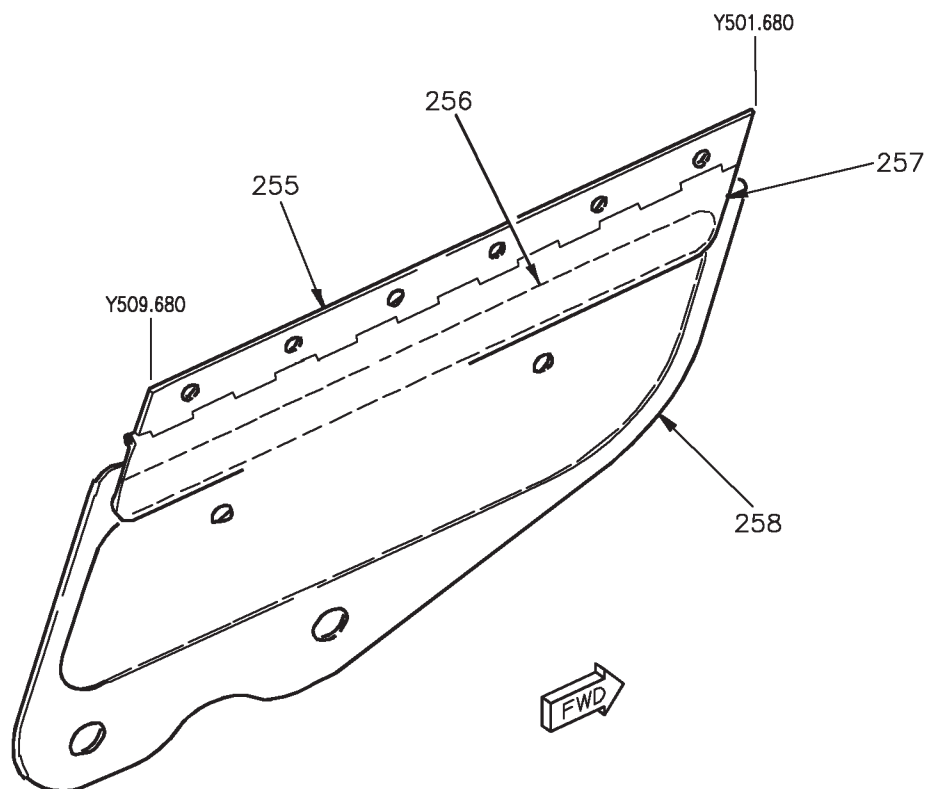


Figure 1. Skins, Doors, and Covers (Sheet 17)



AF

161945 AND UP

Figure 1. Skins, Doors, and Covers (Sheet 18)

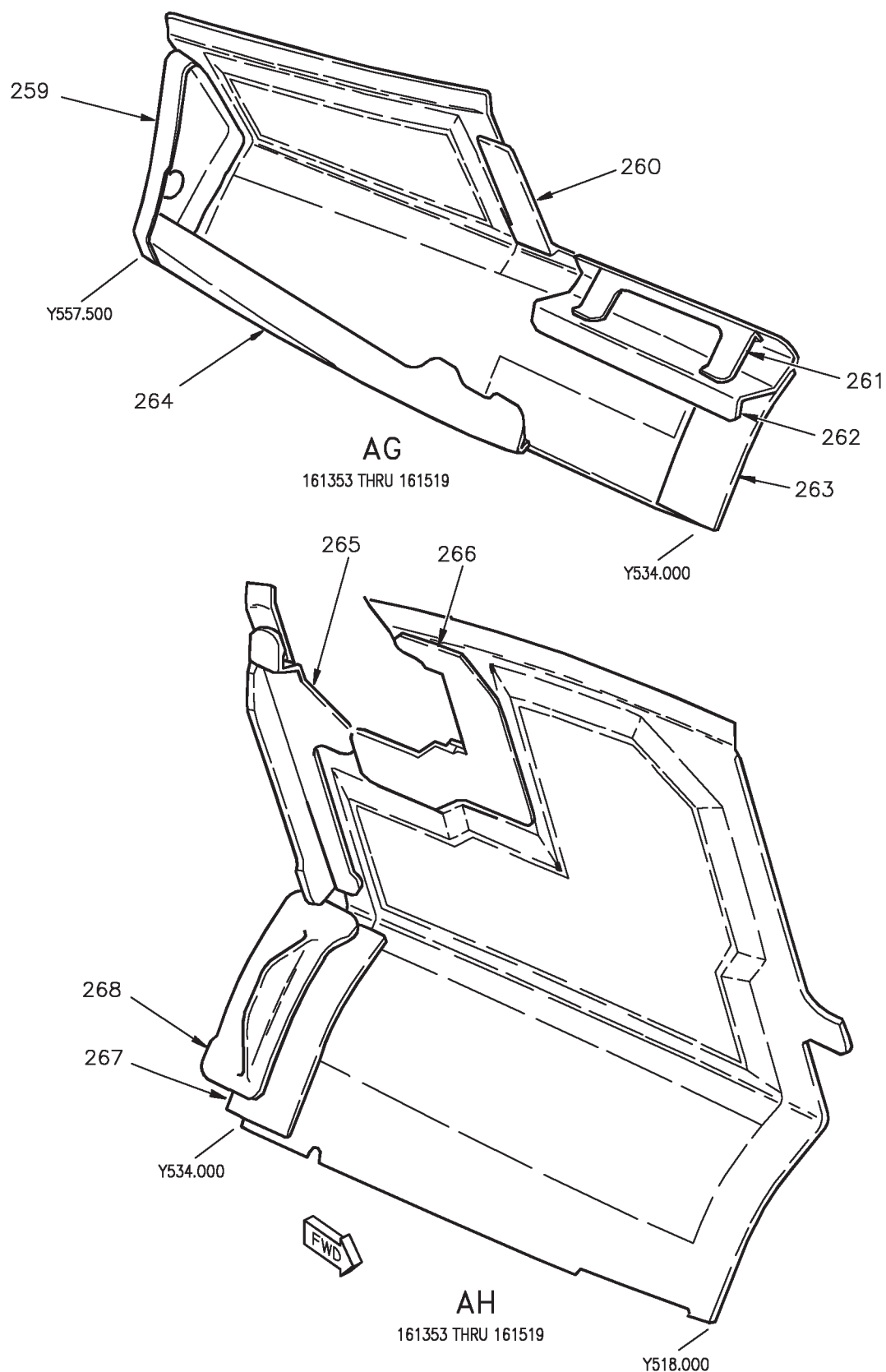


Figure 1. Skins, Doors, and Covers (Sheet 19)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|------------------------|------------------------|----------------|
| 1 | Cover (Door 48) | 7075-T76 Alclad, Sheet | Surface |
| 2 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 3 | Cover (Door 50) | 7075-T76 Alclad, Sheet | Surface |
| 4 | Skin (Door 55) | 7075-T76 Alclad, Sheet | Surface |
| 5 | Skin | 7075-T6 Al Aly, Sheet | Surface |
| 6 | Skin (Door 136/174) | 7075-T76 Alclad, Sheet | Surface |
| 7 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 8 | Skin | 6061-T6 Al Aly, Sheet | Surface |
| 9 | Cover (Door 57) | 7075-T76 Alclad, Sheet | Surface |
| 10 | Skin | 6061-T6 Al Aly, Sheet | Surface |
| 11 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 12 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 13 | Filler | 7075-T76 Alclad, Sheet | Surface |
| 14 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 15 | Cover | 7075-T76 Al Aly, Sheet | Surface |
| 16 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 17 | Retainer | 7075-T76 Alclad, Sheet | Surface |
| 18 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 19 | Cover | 7075-T76 Alclad, Sheet | Surface |
| 20 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 21 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 22 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 23 | Fairing | 7075-T62 Alclad, Sheet | Surface |
| 24 | Fairing | 7075-T62 Alclad, Sheet | Surface |

Figure 1. Skin, Doors, and Covers (Sheet 20)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------|----------------|
| 25 | Closeout | 6061-T62 Al Aly, Sheet | Surface |
| 26 | Fairing | 7075-T62 Al Aly, Sheet | Surface |
| 27 | Closeout | 6061-T62 Al Aly, Sheet | Surface |
| 28 | Fairing | 7075-T62 Al Aly, Sheet | Surface |
| 29 | Closeout | 6061-T62 Al Aly, Sheet | Surface |
| 30 | Cap | 6061-T6 Al Aly, Sheet | Surface |
| 31 | Angle | 6061-T62 Al Aly, Sheet | Surface |
| 32 | Angle | 6061-T62 Al Aly, Sheet | Surface |
| 33 | Cap | 6061-T6 Al Aly, Sheet | Surface |
| 34 | Cover (Door 56) | 7075-T76 Alclad, Sheet | Surface |
| 35 | Plate | 7075-T7351 Al Aly, Plate | Pitting |
| 36 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 37 | Plate | 7075-T7351 Al Aly, Plate | Pitting |
| 38 | Cover (Door 56) | 7075-T76 Alclad, Sheet | Surface |
| 39 | Former | 6061-T62 Al Aly, Sheet | Surface |
| 40 | Former | 7075-T62 Alclad, Sheet | Surface |
| 41 | Plate | 7075-T62 Alclad, Sheet | Surface |
| 42 | Former | 7075-T62 Al Aly, Sheet | Surface |
| 43 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 44 | Former | 7075-T62 Alclad, Sheet | Surface |
| 45 | Former | 7075-T62 Alclad, Sheet | Surface |
| 46 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 47 | Door 51 | 7075-T76 Alclad, Sheet | Surface |
| 48 | Hinge | 5052 Al Aly, Sheet | Surface |
| 49 | Hinge | 5052 Al Aly, Sheet | Surface |

Figure 1. Skin, Doors, and Covers (Sheet 21)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|---------------------------------|----------------|
| 50 | Hinge | 7075-T73 Al Aly, Pressing | Surface |
| 51 | Hinge | 7075-T73 Al Aly, Pressing | Surface |
| 52 | Stiffener | 7075-T73511 Al Aly, Extrusion | Pitting |
| 53 | Skin (Door 46) | 7075-T76 Alclad, Sheet | Surface |
| 54 | Bracket | 7075-T76 Alclad, Sheet | Surface |
| 55 | Hinge | 2024-T8511 Al Aly, Extrusion | Pitting |
| 56 | Hinge | 2024-T8511 Al Aly, Extrusion | Pitting |
| 57 | Cover (Door 121) | 7075-T6 Alclad, Sheet | Surface |
| 58 | Door 176 | 7075-T6 Alclad, Sheet | Surface |
| 59 | Hinge | 7075-T73 Al Aly, Pressing | Surface |
| 60 | Hinge | 7075-T73 Al Aly, Pressing | Surface |
| 61 | Bracket | 7075-T76 Alclad, Sheet | Surface |
| 62 | Skin (Door 45) | 7075-T76 Alclad, Sheet | Surface |
| 63 | Doubler | 7075-T76 Al Aly, Extrusion | Pitting |
| 64 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 65 | Cover (Door 41) | 7075-T62 Alclad, Sheet | Surface |
| 66 | Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 67 | Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 68 | Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 69 | Cover (Door 52) | 7075-T651 Al Aly, Plate | Pitting |
| 70 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 71 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 72 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 73 | Tee | 2024-T62 Al Aly, Extrusion | Pitting |
| 74 | Channel | 2024-T72 Alclad, Sheet | Surface |

Figure 1. Skin, Doors, and Covers (Sheet 22)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|---------------------------------|----------------|
| 75 | Channel | 2024-T72 Alclad, Sheet | Surface |
| 76 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 77 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 78 | Channel | 2024-T72 Alclad, Sheet | Surface |
| 79 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 80 | Tee | 2024-T62 Al Aly, Extrusion | Pitting |
| 81 | Stiffener | 2024-T62 Al Aly, Extrusion | Pitting |
| 82 | Tee | 2024-T62 Al Aly, Extrusion | Pitting |
| 83 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 84 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 85 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 86 | Tee | 2024-T62 Al Aly, Extrusion | Pitting |
| 87 | Stiffener | 2024-T62 Al Aly, Extrusion | Pitting |
| 88 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 89 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 90 | Skin (Door 53) | 2024-T72 Alclad, Sheet | Surface |
| 91 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 92 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 93 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 94 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 95 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 96 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 97 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 98 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 99 | Former | 7075-T76 Al Aly, Extrusion | Pitting |

Figure 1. Skin, Doors, and Covers (Sheet 23)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 100 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 101 | Angle | 7075-T76 Al Aly, Extrusion | Pitting |
| 102 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 103 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 104 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 105 | Angle | 7075-6 Al Aly, Extrusion | Pitting |
| 106 | Angle | 7075-T76 Alclad, Sheet | Surface |
| 107 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 108 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 109 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 110 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 111 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 112 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 113 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 114 | Cover (Door 116) | 7075-T76 Alclad, Sheet | Surface |
| 115 | Angle | 6061-T62 Al Aly, Sheet | Surface |
| 116 | Closeout | 6061-T6 Al Aly, Sheet | Surface |
| 117 | Cap | 6061-T6 Al Aly, Sheet | Surface |
| 118 | Spacer | 7075-T7351 Al Aly, Plate | Pitting |
| 119 | Fairing | 7075-T76 Al Aly, Sheet | Surface |
| 120 | Skin (Door 42) | 7075-T76 Alclad, Sheet | Surface |
| 121 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 122 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 123 | Cover (Door 54) | 7075-T76 Alclad, Sheet | Surface |
| 124 | Instruction Plate | 5052-H34 Al Aly, Sheet | Surface |

Figure 1. Skin, Doors, and Covers (Sheet 24)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------------|----------------|
| 125 | Bonding Strip | Berylliumm Copper Aly 172, Sheet | Discoloration |
| 126 | Retainer | 7075-T76 Alclad, Sheet | Surface |
| 127 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 128 | Retainer | 7075-T76 Alclad, Sheet | Surface |
| 129 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 130 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 131 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 132 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 133 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 134 | Tee | 2024-T62 Al Aly, Extrusion | Pitting |
| 135 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 136 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 137 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 138 | Tee | 2024-T62 Al Aly, Extrusion | Pitting |
| 139 | Channel | 2024-T72 Alclad, Sheet | Surface |
| 140 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 141 | Stiffener | 2024-T62 Al Aly, Extrusion | Pitting |
| 142 | Tee | 2024-T62 Al Aly, Extrusion | Pitting |
| 143 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 144 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 145 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 146 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 147 | Channel | 2024-T72 Alclad, Sheet | Surface |
| 148 | Angle | 2024-T72 Alclad, Sheet | Surface |

Figure 1. Skin, Doors, and Covers (Sheet 25)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------------------|----------------|
| 149 | Stiffener | 2024-T62 Al Aly, Extrusion | Pitting |
| 150 | Tee | 2024-T62 Al Aly, Extrusion | Pitting |
| 151 | Channel | 2024-T72 Alclad, Sheet | Surface |
| 152 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 153 | Skin (Door 53) | 2024-T72 Alclad, Sheet | Surface |
| 154 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 155 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 156 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 157 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 158 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 159 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 160 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 161 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 162 | Angle | 7075-T76 Al Aly, Extrusion | Pitting |
| 163 | Angle | 7075-T76 Alclad, Sheet | Surface |
| 164 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 165 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 166 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 167 | Angle | 7075-6 Al Aly, Extrusion | Pitting |
| 168 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 169 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 170 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 171 | Drain | 7075-T7351 Al Aly, Bar | Pitting |

Figure 1. Skin, Doors, and Covers (Sheet 26)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------------|----------------|
| 172 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 173 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 174 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 175 | Angle | 2024-T72 Alclad, Sheet | Surface |
| 176 | Drain | 7075-T7351 Al Aly, Bar | Pitting |
| 177 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 178 | Retainer | 7075-T76 Alclad, Sheet | Surface |
| 179 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 180 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Pitting |
| 181 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 182 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Pitting |
| 183 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 184 | Retainer | 7075-T76 Alclad, Sheet | Surface |
| 185 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 186 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 187 | Bonding Strip | Berylliumm Copper Aly 172, Sheet | Discoloration |
| 188 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 189 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 190 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 191 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 192 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |

Figure 1. Skin, Doors, and Covers (Sheet 27)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|---------------------------------|----------------|
| 193 | Retainer | 7075-T76 Alclad, Sheet | Surface |
| 194 | Retainer | 7075-T76 Alclad, Sheet | Surface |
| 195 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 196 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 197 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 198 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 199 | Retainer | 7075-T76 Alclad, Sheet | Surface |
| 200 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 201 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 202 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 203 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 204 | Bonding Strip | Beryllium Copper Aly 172, Sheet | Discoloration |
| 205 | Retainer | 7075-T6 Alclad, Sheet | Surface |
| 206 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 207 | Rub Strip | 7075-T6 Al Aly, Sheet | Surface |
| 208 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 209 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 210 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 211 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 212 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 213 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 214 | Angle | 7075-T6 Alclad, Sheet | Surface |

Figure 1. Skin, Doors, and Covers (Sheet 28)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 215 | Rub Strip | 7075-T6 Alclad, Sheet | Surface |
| 216 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 217 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 218 | Angle | 7075-T76 Al Aly, Extrusion | Pitting |
| 219 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 220 | Rub Strip | 7075-T6 Bare, Sheet | Pitting |
| 221 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 222 | Rub Strip | 7075-T6 Bare, Sheet | Pitting |
| 223 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 224 | Rub Strip | 7075-T6 Alclad, Sheet | Surface |
| 225 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 226 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 227 | Angle | 7075-T6 Bare, Sheet | Pitting |
| 228 | Rub Strip | 7075-T6 Alclad, Sheet | Surface |
| 229 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 230 | Angle | 7075-T6 Al Aly, Sheet | Surface |
| 231 | Angle | 7075-T6 Al Aly, Sheet | Surface |
| 232 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 233 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 234 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 235 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 236 | Rub Strip | 7075-T6 Al Aly, Sheet | Surface |
| 237 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 238 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 239 | Angle | 7075-T76 Al Aly, Extrusion | Pitting |

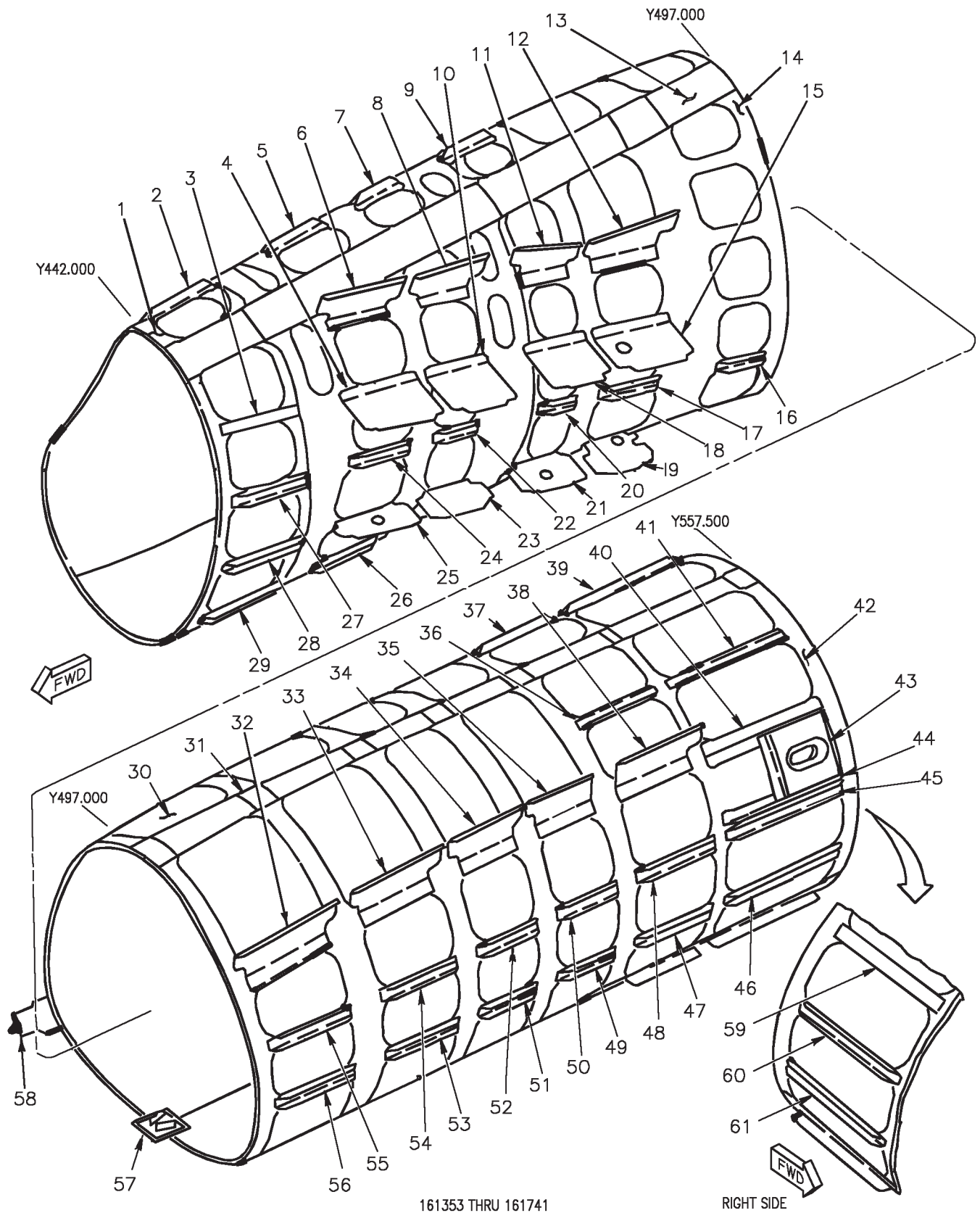
Figure 1. Skin, Doors, and Covers (Sheet 29)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 240 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 241 | Rub Strip | 7075-T6 Bare, Sheet | Pitting |
| 242 | Rub Strip | 7075-T6 Bare, Sheet | Pitting |
| 243 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 244 | Rub Strip | 7075-T6 Alclad, Sheet | Surface |
| 245 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 246 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 247 | Angle | 7075-T6 Bare, Sheet | Surface |
| 248 | Angle | 7075-T6 Alclad, Sheet | Surface |
| 249 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 250 | Cover | 7075-T76 Alclad, Sheet | Surface |
| 251 | Cover | 7075-T76 Alclad, Sheet | Surface |
| 252 | Stiffener | 7075-T6 Alclad, Sheet | Surface |
| 253 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 254 | Bracket | 7075-T76511 Al Aly, Extrusion | Pitting |
| 255 | Hinge | 7075-T73511 Al Aly, Extrusion | Pitting |
| 256 | Filler | 7075-T76 Alclad, Sheet | Surface |
| 257 | Hinge | 7075-T73511 Al Aly, Extrusion | Pitting |
| 258 | Cover (Door 46) | 7075-T62 Alclad, Sheet | Surface |
| 259 | Former | 6061-T62 Al Aly, Sheet | Surface |
| 260 | Former | 7075-T76511 Al Aly, Extrusion | Pitting |
| 261 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 262 | Web | 7075-T62 Alclad, Sheet | Surface |
| 263 | Plate | 7075-T6 Al Aly, Sheet | Surface |
| 264 | Stringer | 7075-T62 Alclad, Sheet | Surface |

Figure 1. Skin, Doors, and Covers (Sheet 30)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 265 | Former | 7075-T62 Alclad, Sheet | Surface |
| 266 | Plate | 7075-T6 Alclad, Sheet | Surface |
| 267 | Plate | 7075-T6 Al Aly, Sheet | Surface |
| 268 | Former | 7075-T76 Al Aly, Extrusion | Pitting |

Figure 1. Skin, Doors, and Covers (Sheet 31)



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Figure 2. Internal Duct Skins (Sheet 1)

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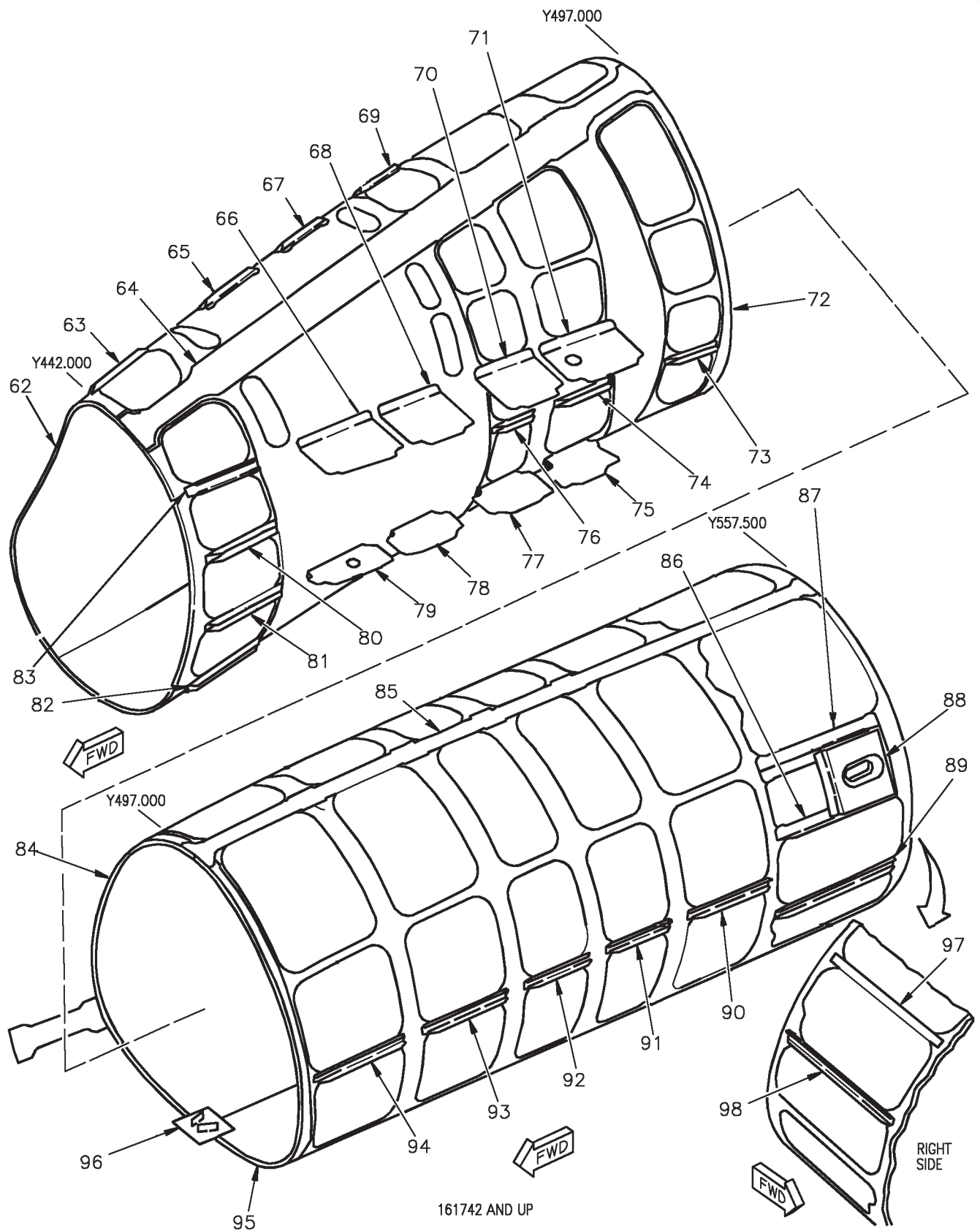


Figure 2. Internal Duct Skins (Sheet 2)

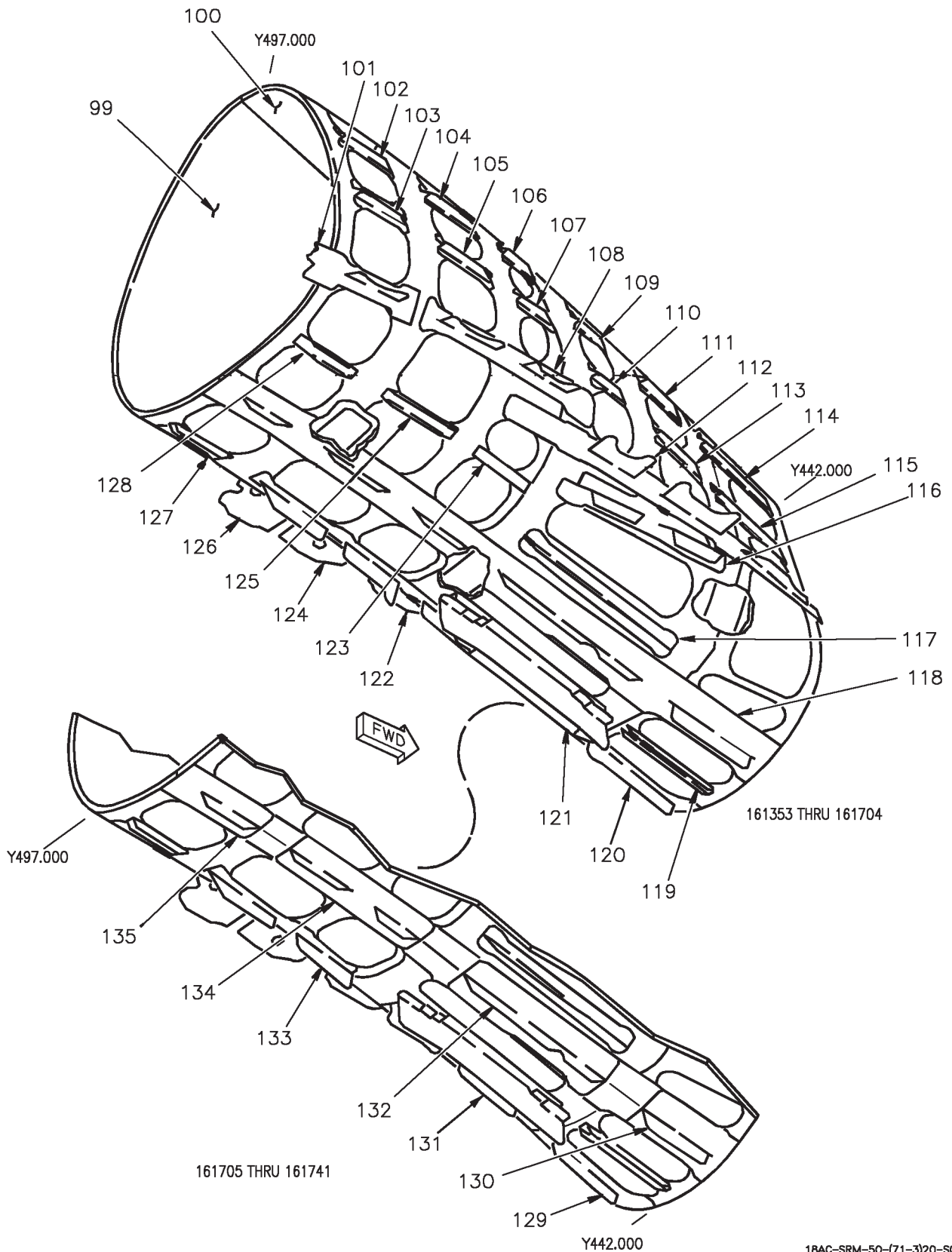


Figure 2. Internal Duct Skins (Sheet 3)

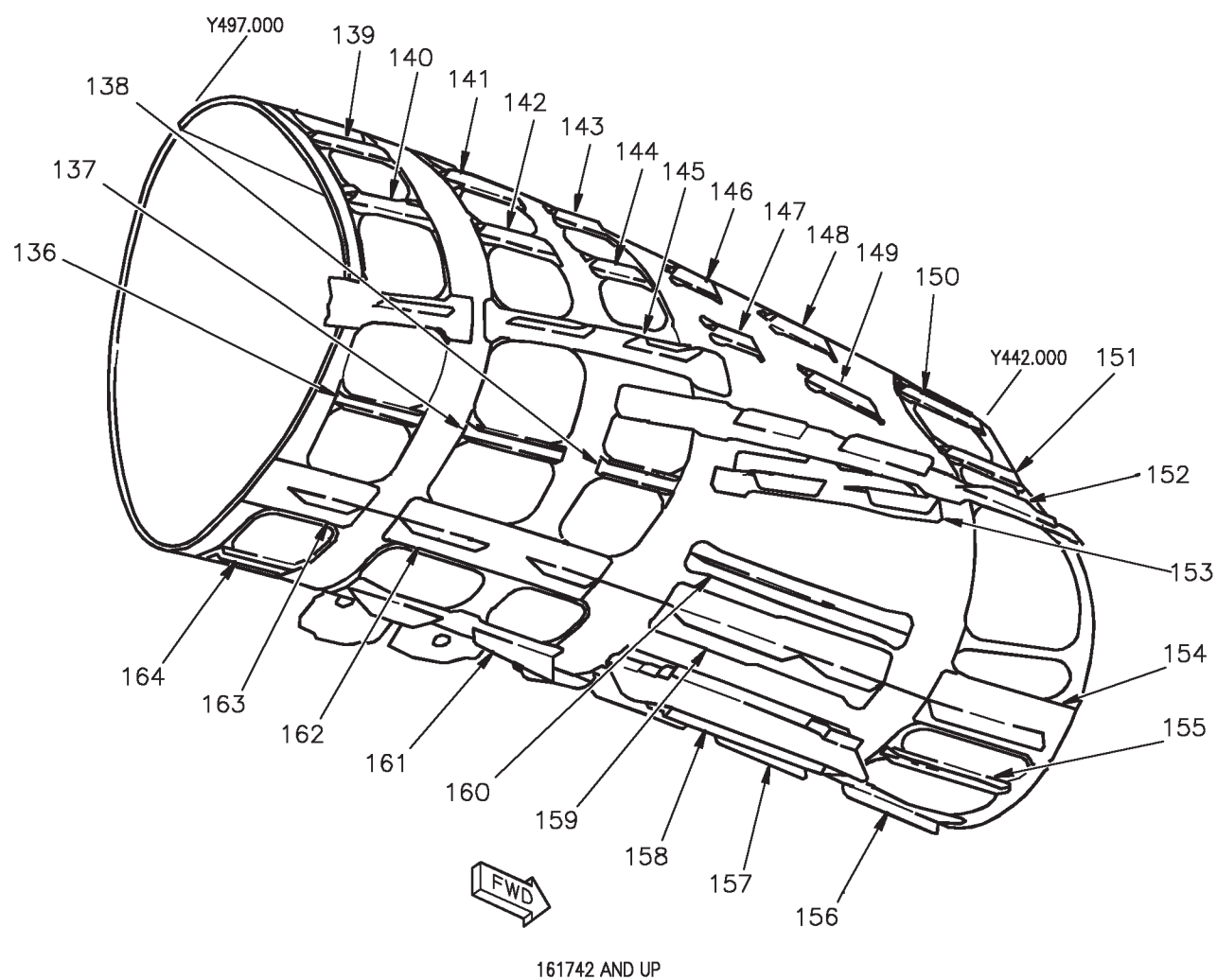


Figure 2. Internal Duct Skins (Sheet 4)

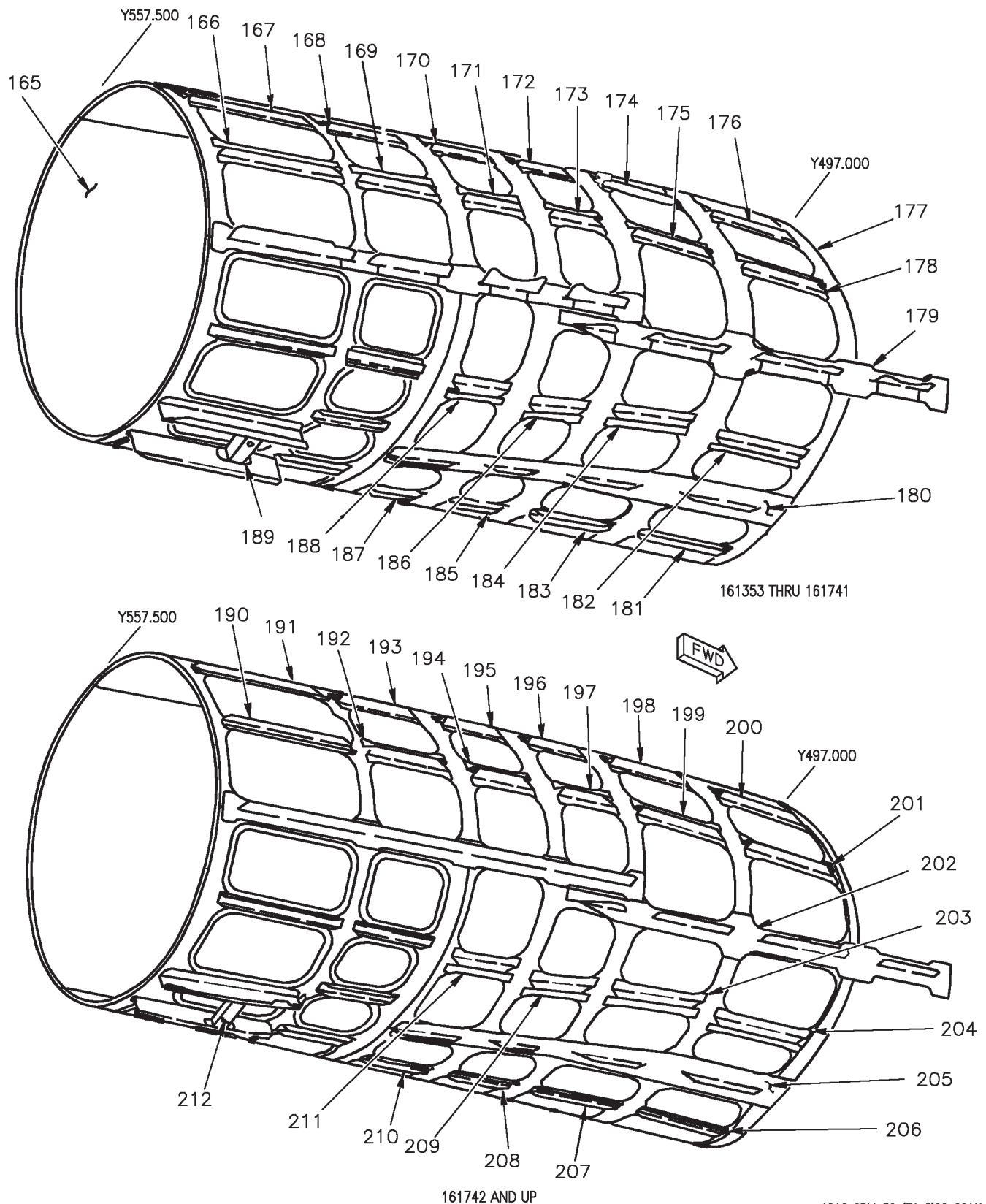


Figure 2. Internal Duct Skins (Sheet 5)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------|----------------|
| 1 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 2 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 3 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 4 | Web | 7075-T62 Alclad, Sheet | Surface |
| 5 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 6 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 7 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 8 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 9 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 10 | Web | 7075-T62 Alclad, Sheet | Surface |
| 11 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 12 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 13 | Stringer | 7075-T651 Al Aly, Plate | Pitting |
| 14 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 15 | Web | 7075-T62 Alclad, Sheet | Surface |
| 16 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 17 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 18 | Web | 7075-T62 Alclad, Sheet | Surface |
| 19 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 20 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 21 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 22 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 23 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 24 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 25 | Web | 7075-T76 Al Aly, Sheet | Surface |

Figure 2. Internal Duct Skins (Sheet 6)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 26 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 27 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 28 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 29 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 30 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 31 | Stringer | 7075-T76 Alclad, Sheet | Surface |
| 32 | Intercostal | 7075-T62 Alclad, Sheet | Surface |
| 33 | Intercostal | 7075-T62 Alclad, Sheet | Surface |
| 34 | Intercostal | 7075-T62 Alclad, Sheet | Surface |
| 35 | Intercostal | 7075-T62 Alclad, Sheet | Surface |
| 36 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 37 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 38 | Intercostal | 7075-T62 Alclad, Sheet | Surface |
| 39 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 40 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 41 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 42 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 43 | Bracket | 6061-T651 Al Aly, Plate | Pitting |
| 44 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 45 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 46 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 47 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 48 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 49 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 50 | Stringer | 7075-T62 Alclad, Sheet | Surface |

Figure 2. Internal Duct Skins (Sheet 7)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 51 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 52 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 53 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 54 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 55 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 56 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 57 | Vortex Generator | 7075-T73511 Al Aly, Bar | Pitting |
| 58 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 59 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 60 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 61 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 62 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 63 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 64 | Stringer | 7075-T76 Alclad, Sheet | Surface |
| 65 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 66 | Web | 7075-T76 Alclad, Sheet | Surface |
| 67 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 68 | Web | 7075-T76 Alclad, Sheet | Surface |
| 69 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 70 | Web | 7075-T76 Alclad, Sheet | Surface |
| 71 | Web | 7075-T62 Alclad, Sheet | Surface |
| 72 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 73 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 74 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 75 | Web | 7075-T62 Alclad, Sheet | Surface |

Figure 2. Internal Duct Skins (Sheet 8)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 76 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 77 | Web | 7075-T76 Alclad, Sheet | Surface |
| 78 | Web | 7075-T76 Alclad, Sheet | Surface |
| 79 | Web | 7075-T76 Alclad, Sheet | Surface |
| 80 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 81 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 82 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 83 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 84 | Skin | 7075-T62 Alclad, Sheet | Surface |
| 85 | Stringer | 7075-T76 Al Aly, Sheet | Surface |
| 86 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 87 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 88 | Bracket | 6061-T651 Al Aly, Plate | Pitting |
| 89 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 90 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 91 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 92 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 93 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 94 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 95 | Skin | 7075-T62 Alclad, Sheet | Surface |
| 96 | Vortex Generator | 7075-T73511 Al Aly, Bar | Pitting |
| 97 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 98 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 99 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 100 | Skin | 7075-T76 Alclad, Sheet | Surface |

Figure 2. Internal Duct Skins (Sheet 9)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 101 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 102 | Stringer | 7075-T6 Alclad, Sheet | Surface |
| 103 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 104 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 105 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 106 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 107 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 108 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 109 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 110 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 111 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 112 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 113 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 114 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 115 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 116 | Longeron | 7075-T73511 Al Aly, Bar | Pitting |
| 117 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 118 | Stringer | 7075-T73 Al Aly, Extrusion | Pitting |
| 119 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 120 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 121 | Longeron | 7075-T73511 Al Aly, Bar | Pitting |
| 122 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 123 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 124 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 125 | Stringer | 7075-T62 Alclad, Sheet | Surface |

Figure 2. Internal Duct Skins (Sheet 10)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 126 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 127 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 128 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 129 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 130 | Stringer | 7075-T73 Al Aly, Extrusion | Pitting |
| 131 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 132 | Stringer | 7075-T73 Al Aly, Extrusion | Pitting |
| 133 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 134 | Stringer | 7075-T73 Al Aly, Extrusion | Pitting |
| 135 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 136 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 137 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 138 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 139 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 140 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 141 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 142 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 143 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 144 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 145 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 146 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 147 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 148 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 149 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 150 | Stringer | 7075-T62 Alclad, Sheet | Surface |

Figure 2. Internal Duct Skins (Sheet 11)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 151 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 152 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 153 | Longeron | 7075-T73511 Al Aly, Bar | Pitting |
| 154 | Stringer | 7075-T73 Al Aly, Extrusion | Pitting |
| 155 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 156 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 157 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 158 | Longeron | 7075-T73511 Al Aly, Bar | Pitting |
| 159 | Stringer | 7075-T73 Al Aly, Extrusion | Pitting |
| 160 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 161 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 162 | Stringer | 7075-T73 Al Aly, Extrusion | Pitting |
| 163 | Stringer | 7075-T73 Al Aly, Extrusion | Pitting |
| 164 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 165 | Skin | 7075-T62 Alclad, Sheet | Surface |
| 166 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 167 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 168 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 169 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 170 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 171 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 172 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 173 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 174 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 175 | Stringer | 7075-T62 Alclad, Sheet | Surface |

Figure 2. Internal Duct Skins (Sheet 12)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|----------------|
| 176 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 177 | Skin | 7075-T62 Alclad, Sheet | Surface |
| 178 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 179 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 180 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 181 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 182 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 183 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 184 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 185 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 186 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 187 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 188 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 189 | Bracket | 7075-T73511 Al Aly, Forging | Pitting |
| 190 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 191 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 192 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 193 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 194 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 195 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 196 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 197 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 198 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 199 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 200 | Stringer | 7075-T62 Alclad, Sheet | Surface |

Figure 2. Internal Duct Skins (Sheet 13)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 201 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 202 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 203 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 204 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 205 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 206 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 207 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 208 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 209 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 210 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 211 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 212 | Bracket | 7075-T73 Al Aly, Forging | Pitting |

Figure 2. Internal Duct Skins (Sheet 14)

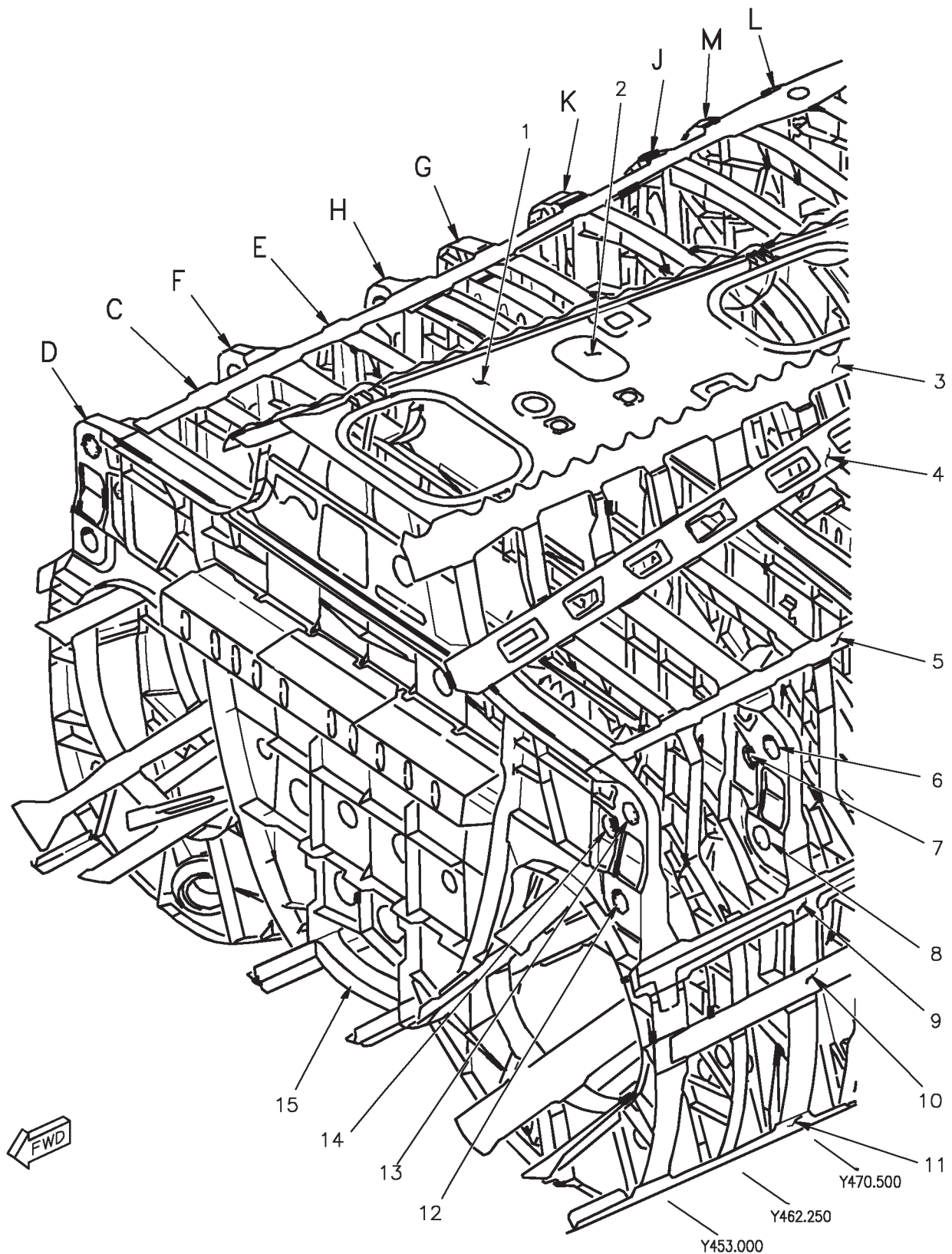
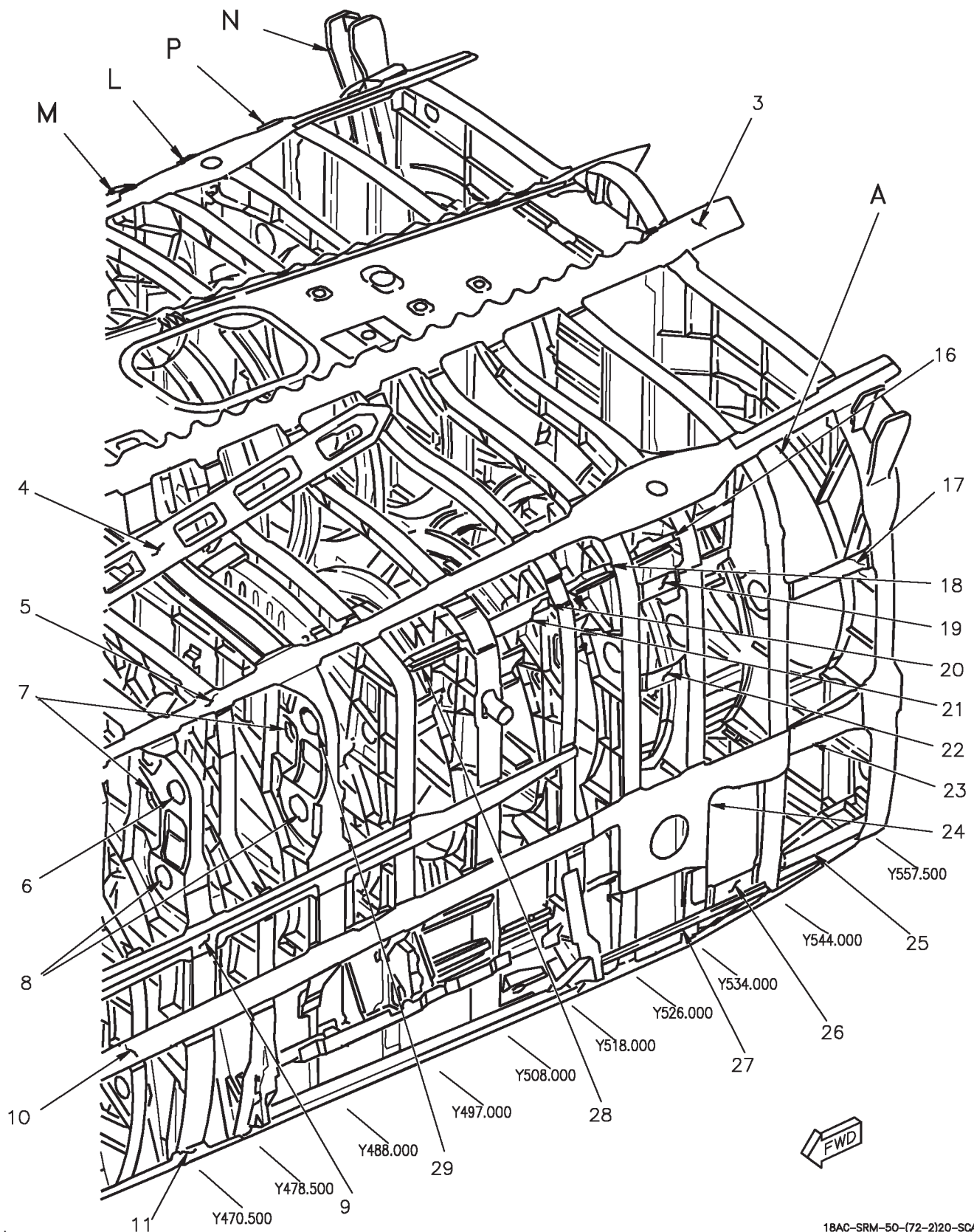


Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 1)



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Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 2)

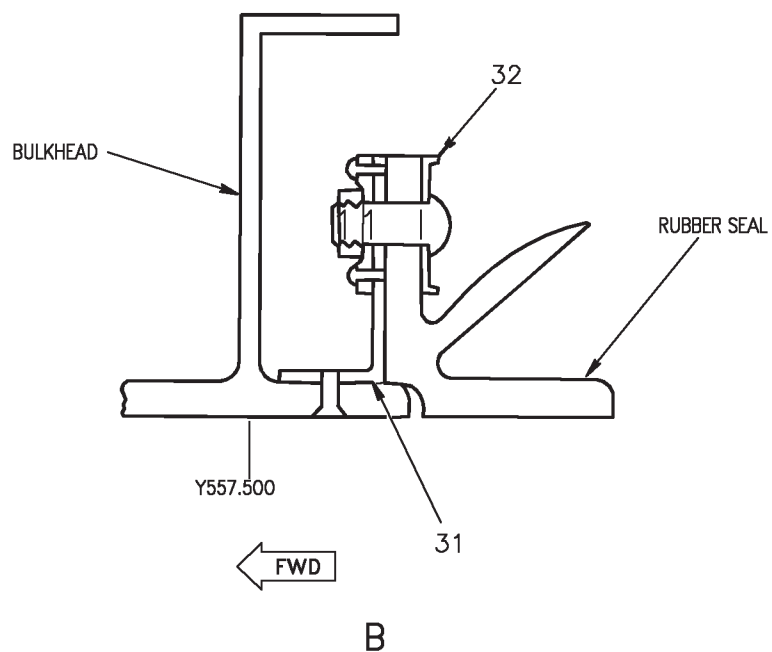
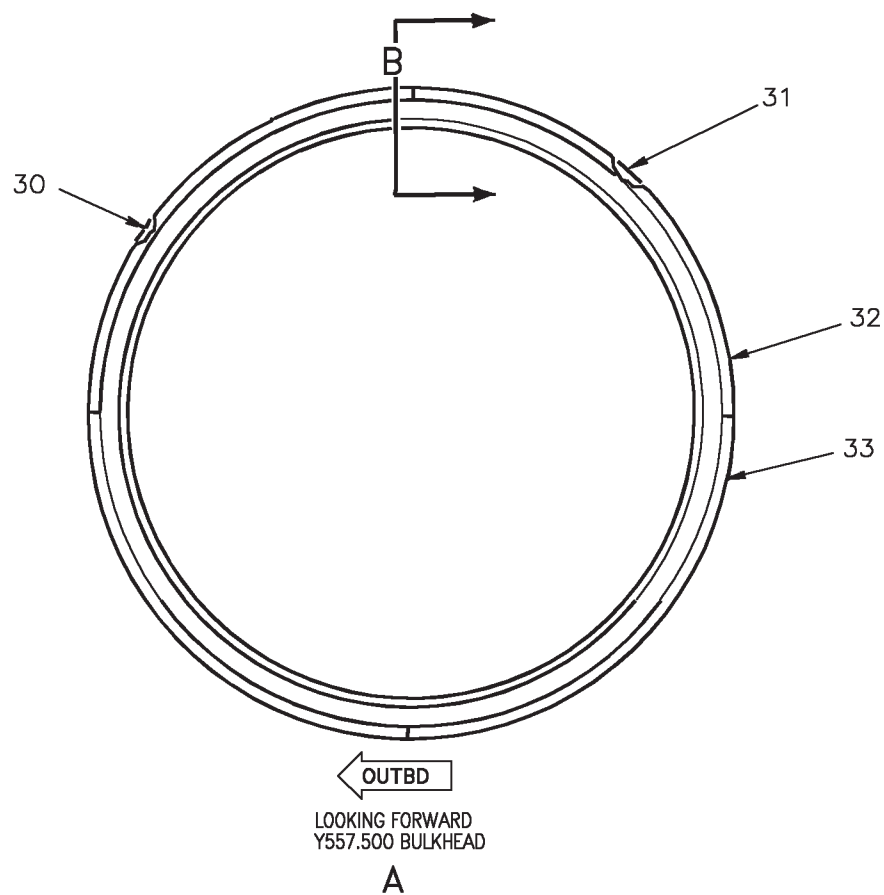


Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 3)

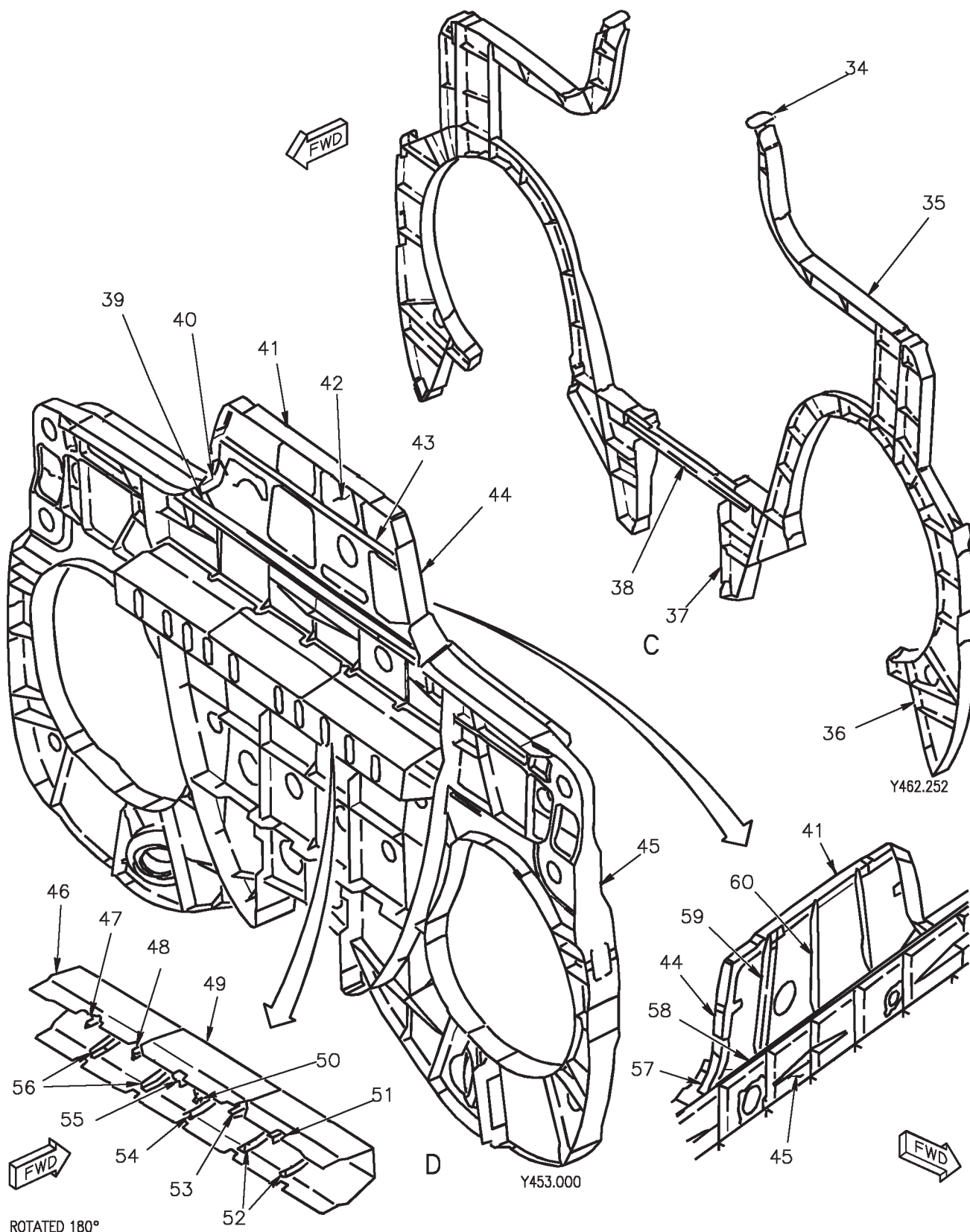


Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 4)

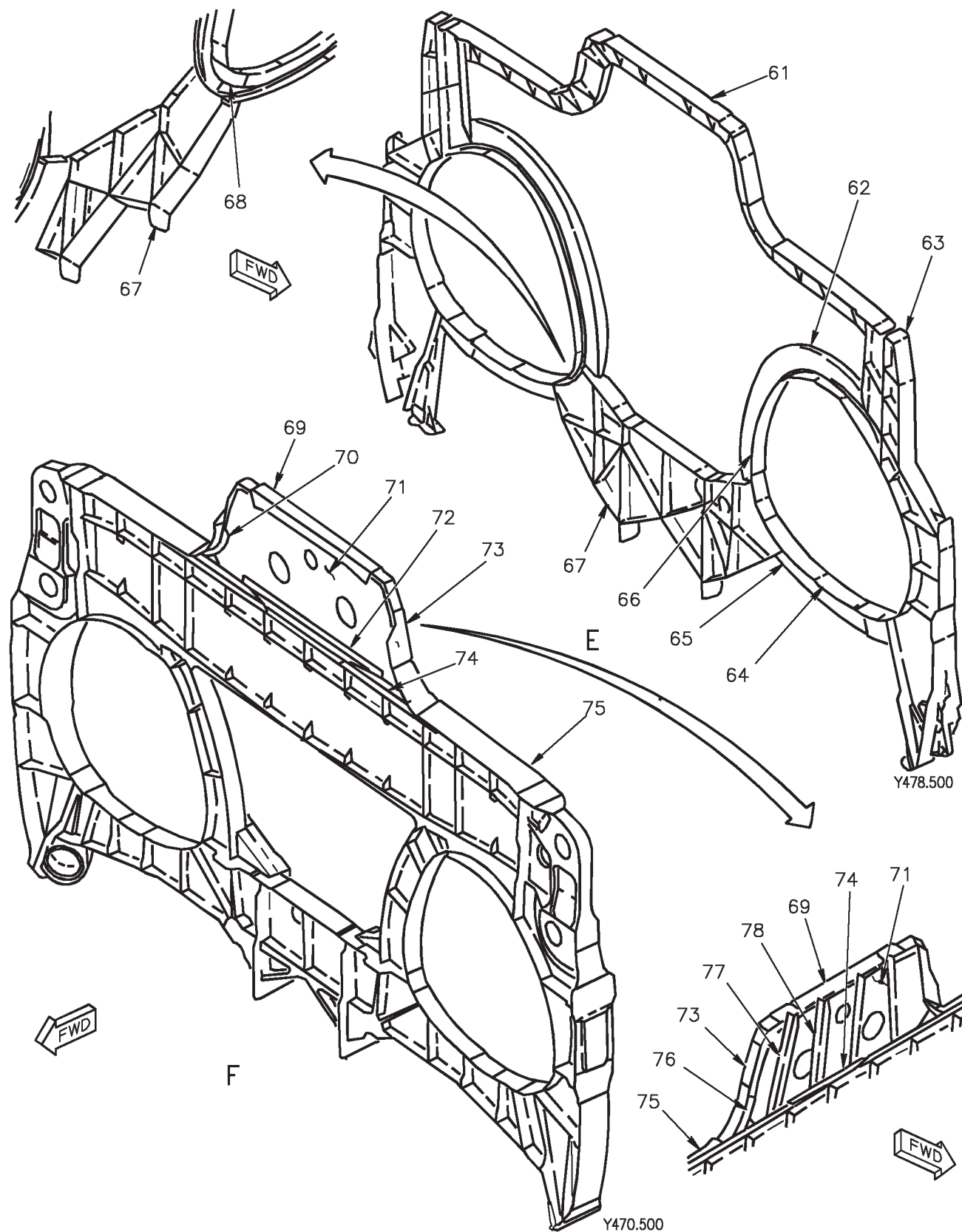


Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 5)

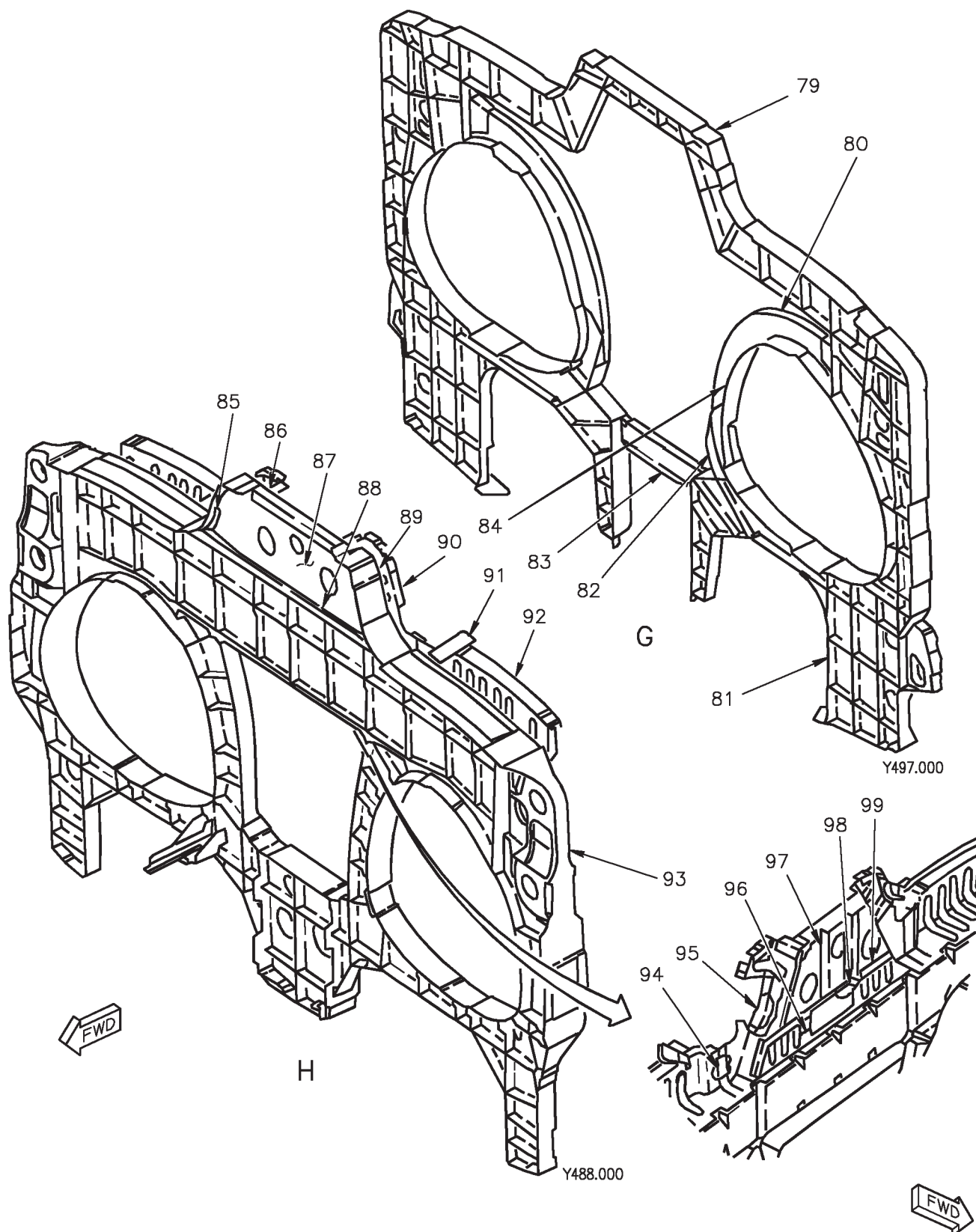


Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 6)

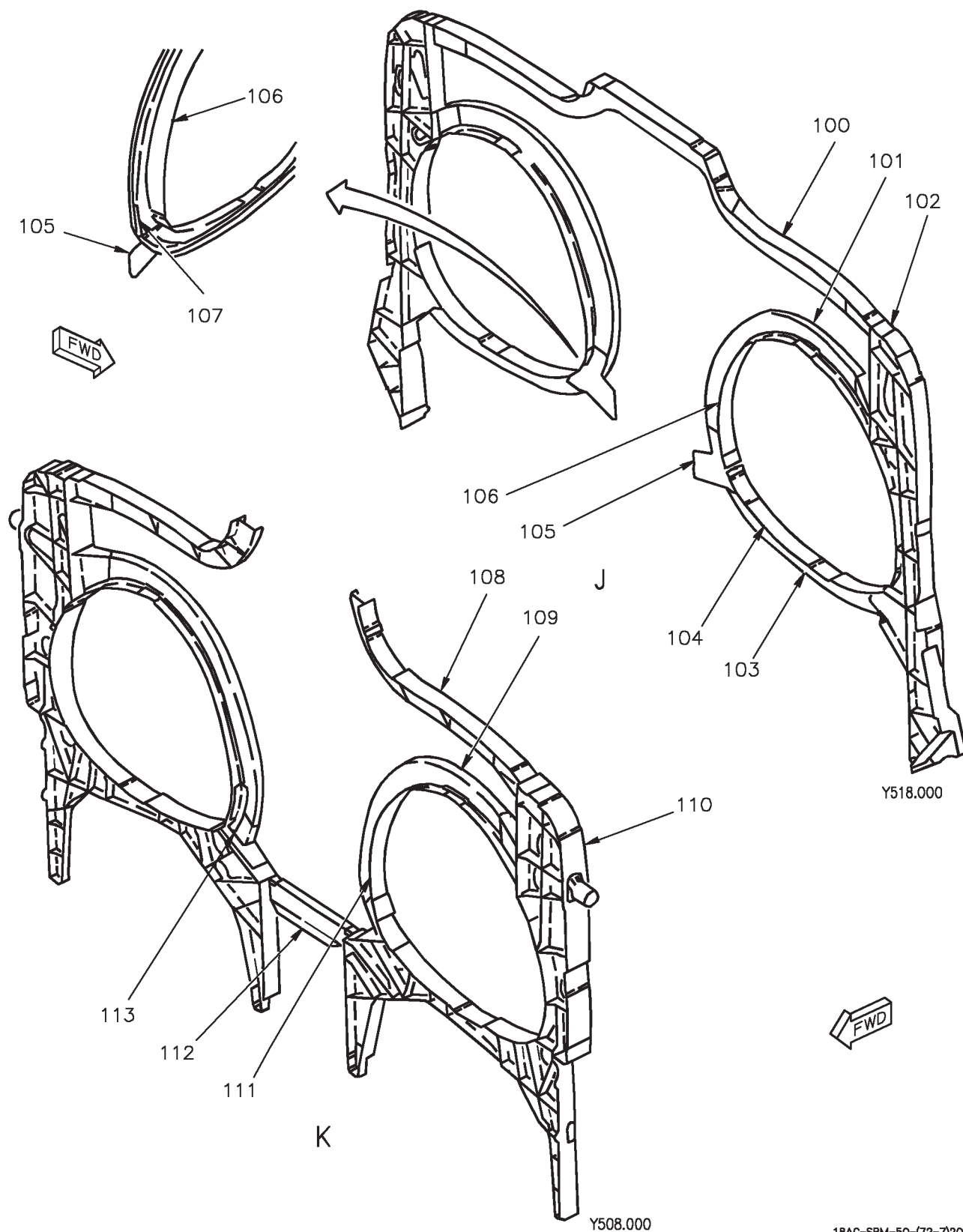


Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 7)

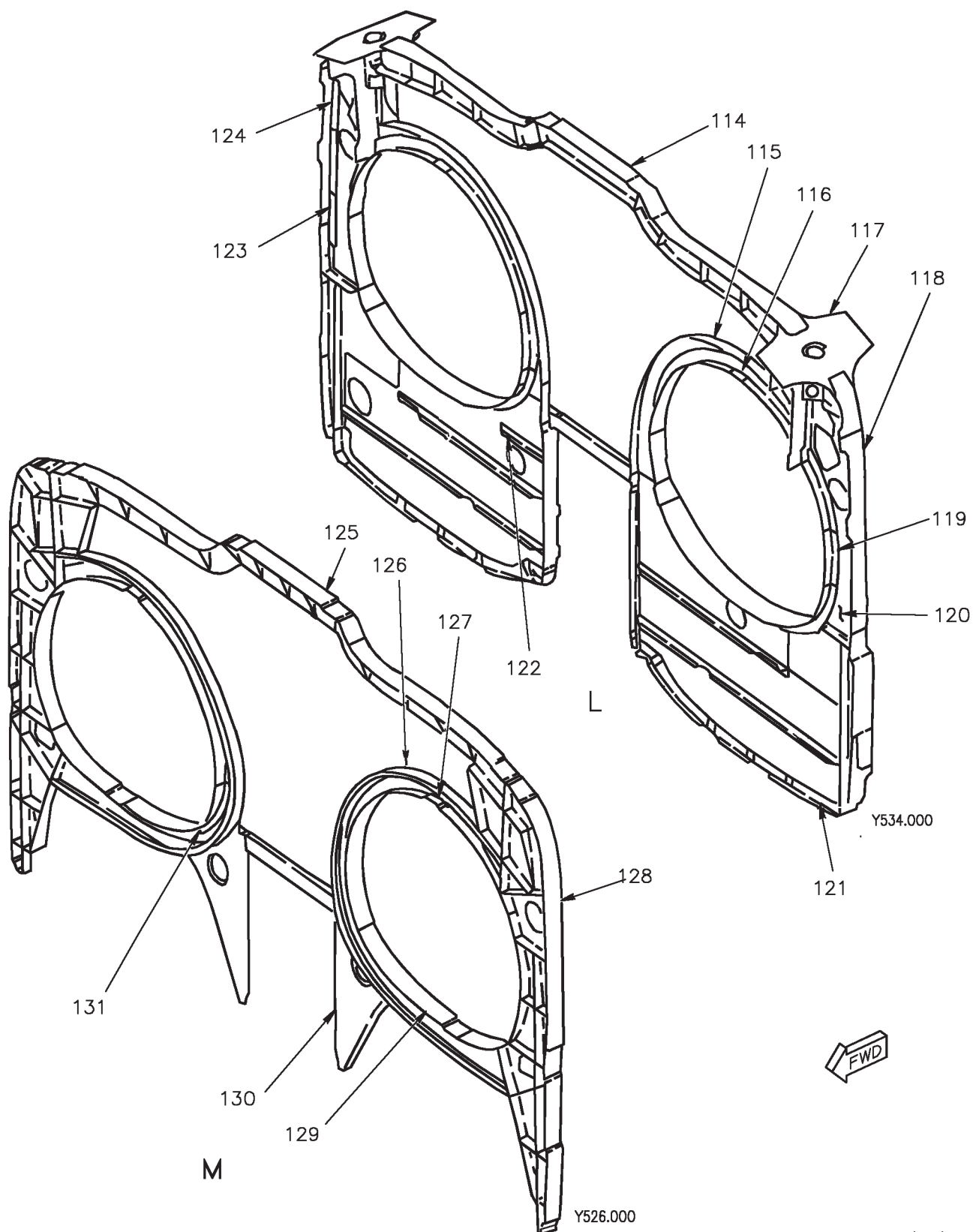


Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 8)

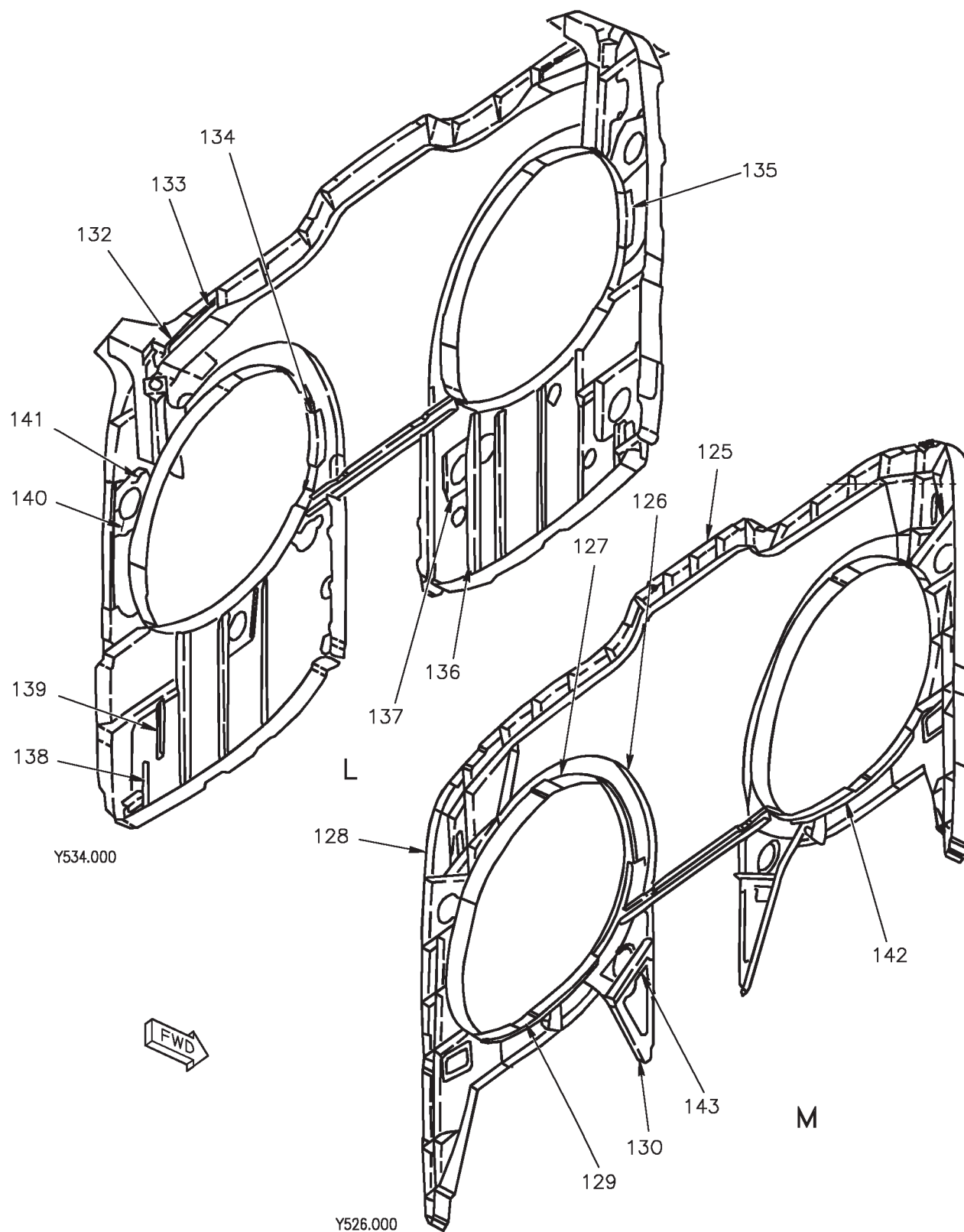


Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 9)

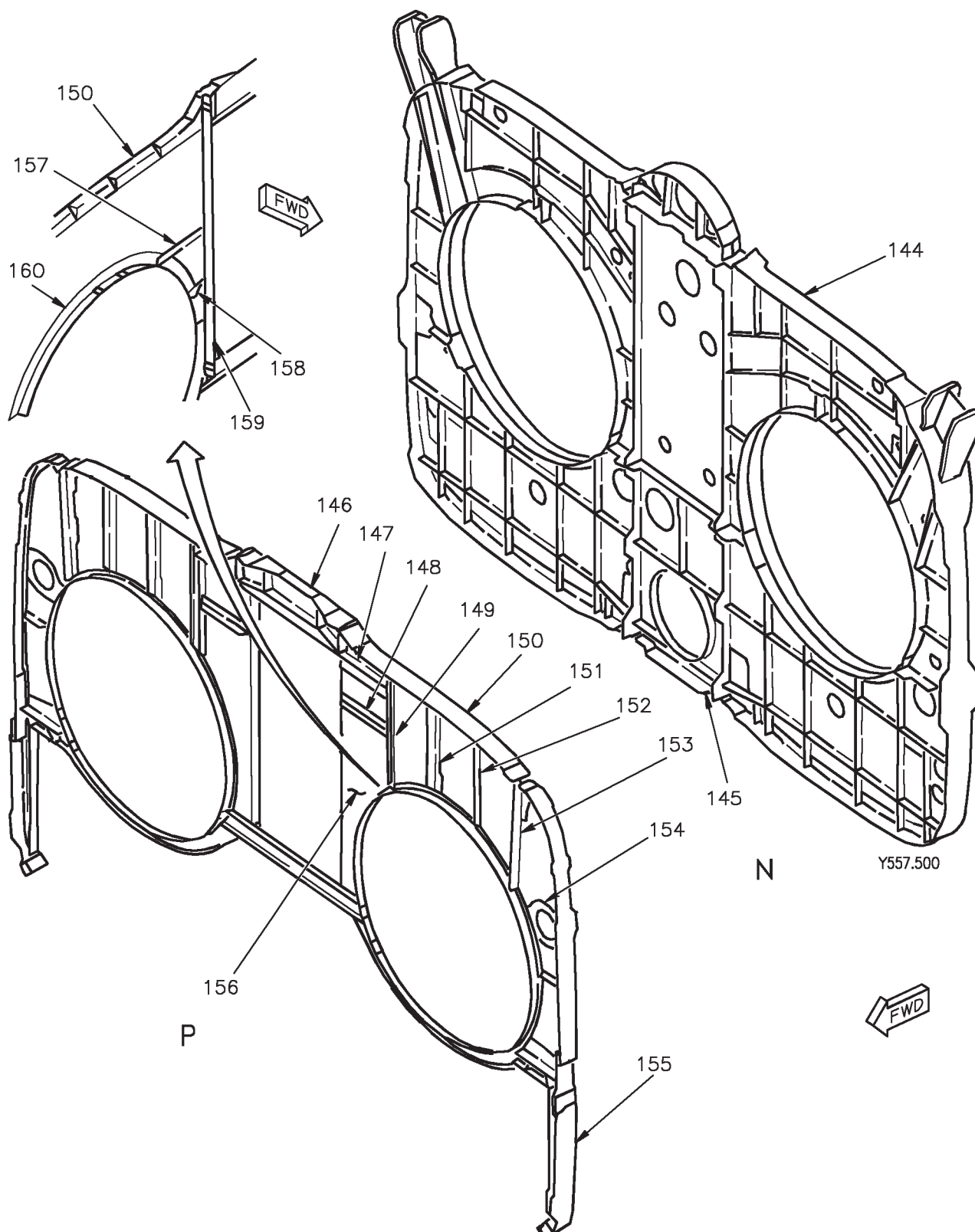


Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 10)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------------|------------------|
| 1 | Fitting | 7050-T73651 Al Aly, Plate | Pitting |
| 2 | Cover (Door FBB) | 7075-T6 Al Aly, Sheet | Surface |
| 3 | Longeron | 7149-T73511 Al Aly, Bar | Pitting |
| 4 | Longeron | 7075-T76 Al Aly, Sheet | Surface |
| 5 | Longeron | 7149-0 Al Aly, Extrusion | Pitting |
| 6 | Bushing | CA172 Beryllium Copper, Bar | Discoloration |
| 7 | Bushing | CA172 Beryllium Copper, Bar | Discoloration |
| 8 | Bushing | CA172 Beryllium Copper, Tubing | Discoloration |
| 9 | Longeron | 7075-T73 Al Aly, Extrusion | Pitting |
| 10 | Longeron | 7075-T73511 Al Aly, Extrusion | Pitting |
| 11 | Longeron | 7149-T73511 Al Aly, Bar | Pitting |
| 12 | Bushing | CA172 Beryllium Copper, Tubing | Discoloration |
| 13 | Bushing | CA172 Beryllium Copper, Bar | Discoloration |
| 14 | Bushing | CA172 Beryllium Copper, Bar | Discoloration |
| 15 | Former | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 16 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |
| 17 | Stringer | 7075-T7351 Al Aly, Bar | Pitting |
| 18 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |
| 19 | Stringer | 7075-T7351 Al Aly, Bar | Pitting |
| 20 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |
| 21 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 22 | Stringer | 7075-T7351 Al Aly, Bar | Pitting |
| 23 | Fitting | 7149-T73511 Al Aly, Bar | Pitting |
| 24 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 25 | Support | 7075-T73511 Al Aly, Plate | Pitting |

Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 11)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 26 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 27 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 28 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |
| 29 | Bushing | CA172 Beryllium Copper, Bar | Discoloration |
| 30 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 31 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 32 | Retainer | 7075-T62 Al Aly, Sheet | Surface |
| 33 | Retainer | 7075-T62 Al Aly, Sheet | Surface |
| 34 | Clip | 7075-T76511 Al Aly, Extrusion | Pitting |
| 35 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 36 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 37 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 38 | Support | 7075-T76511 Al Aly, Extrusion | Pitting |
| 39 | Strap | 7075-T7351 Al Aly, Plate | Pitting |
| 40 | Plate | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 41 | Support | 7075-T76511 Al Aly, Extrusion | Pitting |
| 42 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 43 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 44 | Cap | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 45 | Bulkhead | 7050-T73651 Al Aly, Plate | Pitting |
| 46 | Tunnel | 7075-T62 Al Aly, Sheet | Surface |
| 47 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 48 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 49 | Cover | 7075-T6 Al Aly, Sheet | Surface |
| 50 | Bracket | 6061-T4 Al Aly, Sheet | Surface |

Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 12)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 51 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 52 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 53 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 54 | Bracket | 7075-T62 Al Aly, Sheet | Surface |
| 55 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 56 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 57 | Plate | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 58 | Strap | 7075-T7351 Al Aly, Plate | Pitting |
| 59 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 60 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 61 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 62 | Former | 7075-T62 Alclad, Sheet | Surface |
| 63 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 64 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 65 | Former | 7075-T62 Alclad, Sheet | Surface |
| 66 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 67 | Support | 7050-T73651 Al Aly, Plate | Pitting |
| 68 | Splice | 7075-T62 Alclad, Sheet | Surface |
| 69 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 70 | Plate | 7075-T73 Al Aly, Forging | Pitting |
| 71 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 72 | Strap | 7075-T7351 Al Aly, Plate | Pitting |
| 73 | Cap | 7075-T7351 Al Aly, Plate | Pitting |
| 74 | Strap | 7075-T7351 Al Aly, Plate | Pitting |
| 75 | Bulkhead | 7050-T73651 Al Aly, Plate | Pitting |

Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 13)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 76 | Plate | 7075-T73 Al Aly, Forging | Pitting |
| 77 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 78 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 79 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 80 | Former | 7075-T62 Alclad, Sheet | Surface |
| 81 | Former | 7075-T7351 Al Aly, Plate | Pitting |
| 82 | Splice | 7075-T62 Alclad, Sheet | Surface |
| 83 | Support | 7075-T76511 Al Aly, Extrusion | Pitting |
| 84 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 85 | Plate | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 86 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 87 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 88 | Strap | 7075-T7351 Al Aly, Plate | Pitting |
| 89 | Cap | 7075-T7351 Al Aly, Plate | Pitting |
| 90 | Tunnel | 7075-T62 Al Aly, Sheet | Surface |
| 91 | Intercostal | 7075-T7351 Al Aly, Bar | Pitting |
| 92 | Tunnel | 7075-T62 Al Aly, Sheet | Surface |
| 93 | Bulkhead | 7050-T73651 Al Aly, Plate | Pitting |
| 94 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |
| 95 | Plate | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 96 | Tunnel | 7075-T62 Al Aly, Sheet | Surface |
| 97 | Stiffener | 7075-T76 Al Aly, Extrusion | Pitting |
| 98 | Angle | 7075-T62 Al Aly, Sheet | Surface |
| 99 | Strap | 7075-T7351 Al Aly, Plate | Pitting |
| 100 | Former | 7050-T73651 Al Aly, Plate | Pitting |

Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 14)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 101 | Former | 7075-T62 Alclad, Sheet | Surface |
| 102 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 103 | Former | 7075-T62 Alclad, Sheet | Surface |
| 104 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 105 | Bracket | 7075-T62 Al Aly, Sheet | Surface |
| 106 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 107 | Strap | 7075-T76 Al Aly, Sheet | Surface |
| 108 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 109 | Former | 7075-T62 Al Aly, Sheet | Surface |
| 110 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 111 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 112 | Support | 7075-T76511 Al Aly, Extrusion | Pitting |
| 113 | Angle | 7075-T62 Al Aly, Sheet | Surface |
| 114 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 115 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 116 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 117 | Adapter | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 118 | Former | 7075-T73 Al Aly, Forging | Pitting |
| 119 | Angle | 7075-T62 Al Aly, Sheet | Surface |
| 120 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 121 | Cap | 7075-T7351 Al Aly, Plate | Pitting |
| 122 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 123 | Plate | 7075-T6 Al Aly, Sheet | Surface |
| 124 | Plate | 7075-T76 Al Aly, Sheet | Surface |
| 125 | Former | 7050-T73651 Al Aly, Plate | Pitting |

Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 15)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 126 | Support | 7075-T623 Alclad, Sheet | Surface |
| 127 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 128 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 129 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 130 | Stiffener | 7075-T76 Al Aly, Sheet | Surface |
| 131 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 132 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 133 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 134 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 135 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 136 | Stiffener | 2024-T8511 Al Aly, Extrusion | Pitting |
| 137 | Bracket | 7075-T62 Al Aly, Sheet | Surface |
| 138 | Bracket | 7075-T62 Alclad, Sheet | Surface |
| 139 | Stiffener | 7075-T6 Al Aly, Sheet | Surface |
| 140 | Doubler | 7075-T6 Al Aly, Sheet | Surface |
| 141 | Doubler | 7075-T6 Al Aly, Sheet | Surface |
| 142 | Support | 7075-T62 Alclad, Sheet | Surface |
| 143 | Angle | 7075-T76 Al Aly, Sheet | Surface |
| 144 | Bulkhead | 7050-T73651 Al Aly, Plate | Pitting |
| 145 | Cap | 7075-T73511 Al Aly, Extrusion | Pitting |
| 146 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 147 | Stiffener | 7075-T6 Al Aly, Sheet | Pitting |
| 148 | Stiffener | 7075-T6 Al Aly, Sheet | Pitting |
| 149 | Stiffener | 7075-T6 Al Aly, Sheet | Pitting |
| 150 | Former | 7075-T7351 Al Aly, Plate | Pitting |

Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 16)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 151 | Stiffener | 7075-T6 Al Aly, Sheet | Pitting |
| 152 | Stiffener | 7075-T6 Al Aly, Sheet | Pitting |
| 153 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 154 | Doubler | 7075-T6 Al Aly, Sheet | Surface |
| 155 | Cap | 7075-T7351 Al Aly, Plate | Pitting |
| 156 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 157 | Stiffener | 7075-T6 Al Aly, Sheet | Pitting |
| 158 | Plate | 7075-T6 Al Aly, Sheet | Surface |
| 159 | Cap | 7075-T76511 Al Aly, Extrusion | Pitting |
| 160 | Cap | 7075-T6 Al Aly, Extrusion | Pitting |

Figure 3. Bulkheads, Formers, Longerons, and Stringers (Sheet 17)

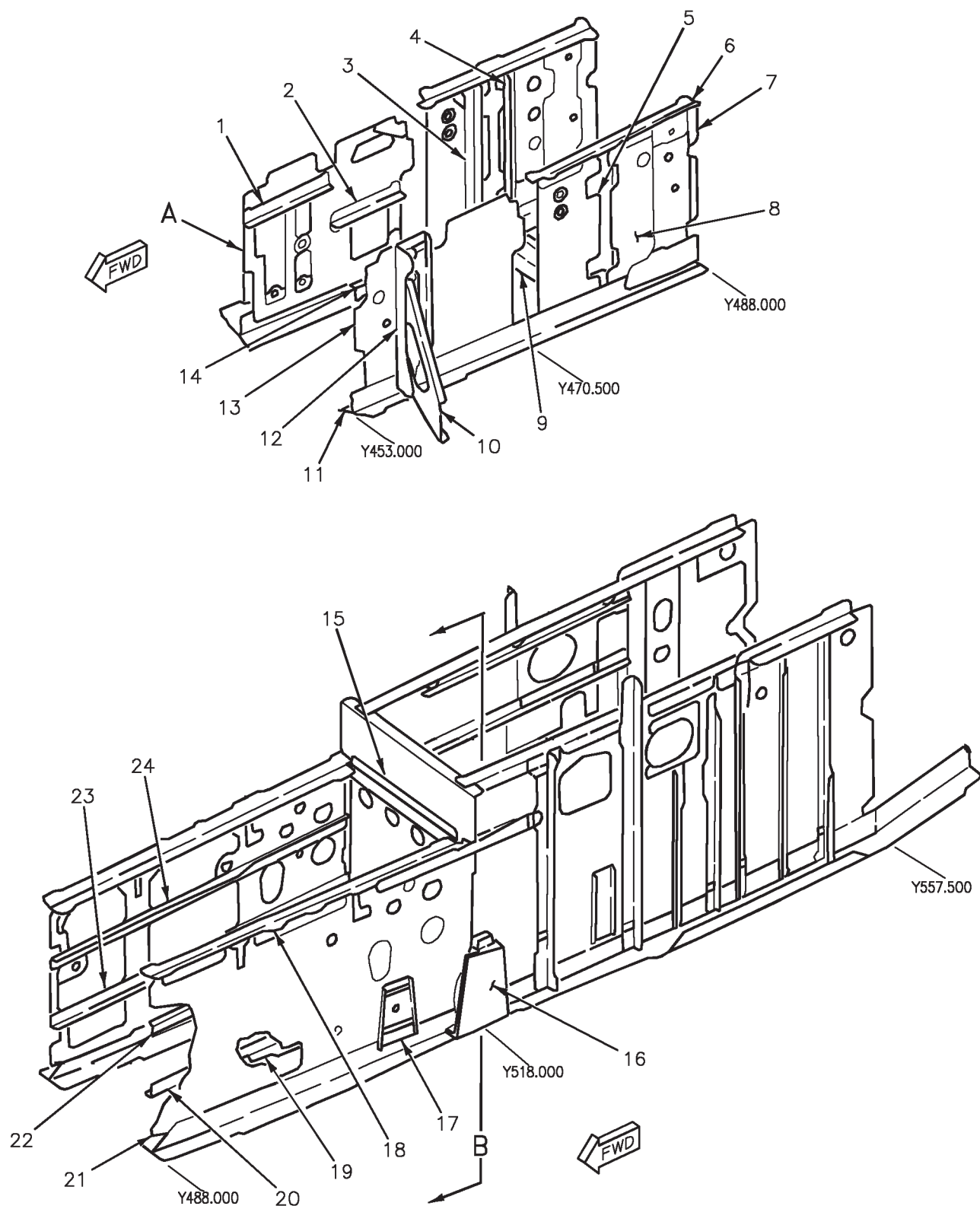


Figure 4. Aft Center Fuselage Keel (Sheet 1)

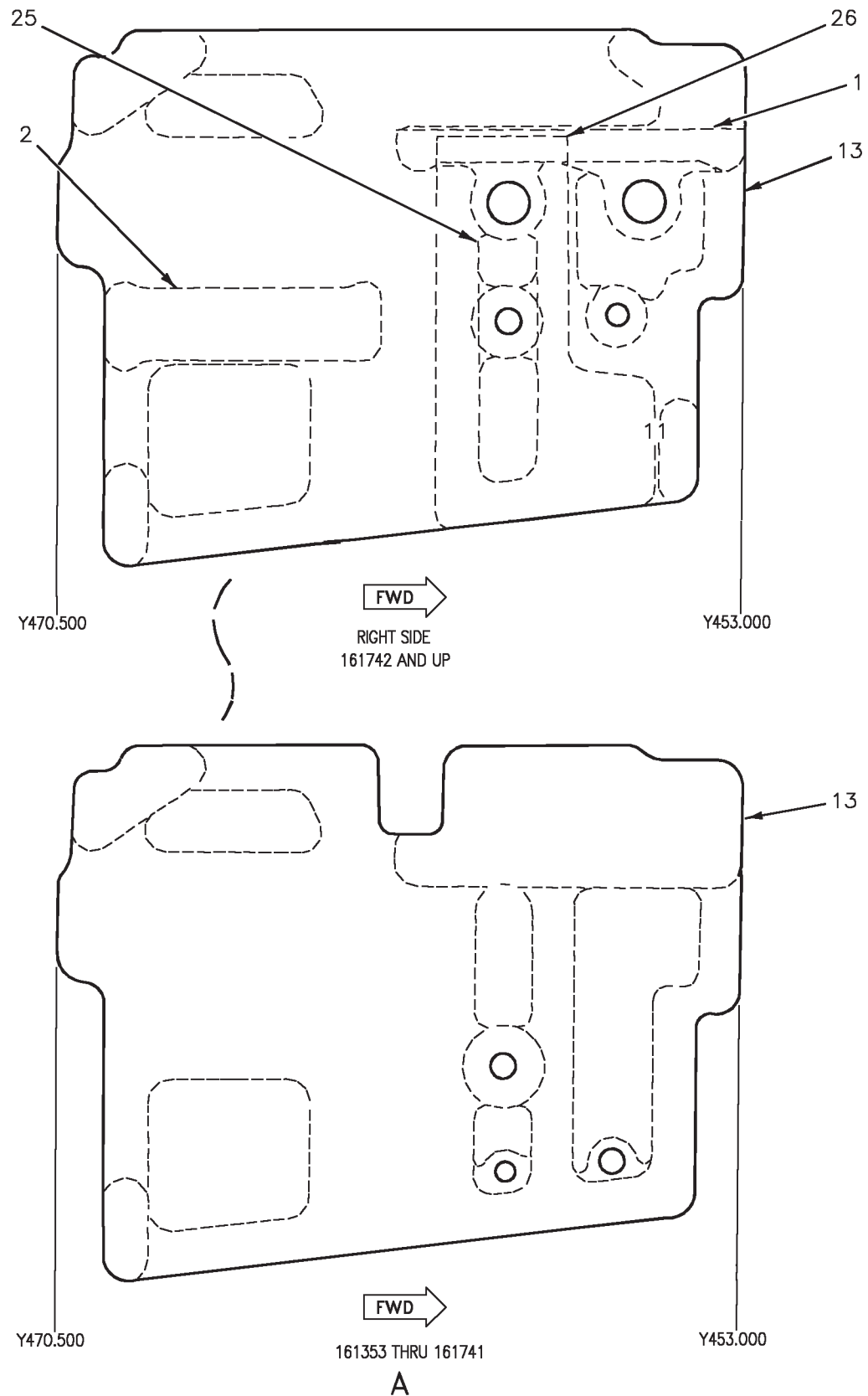
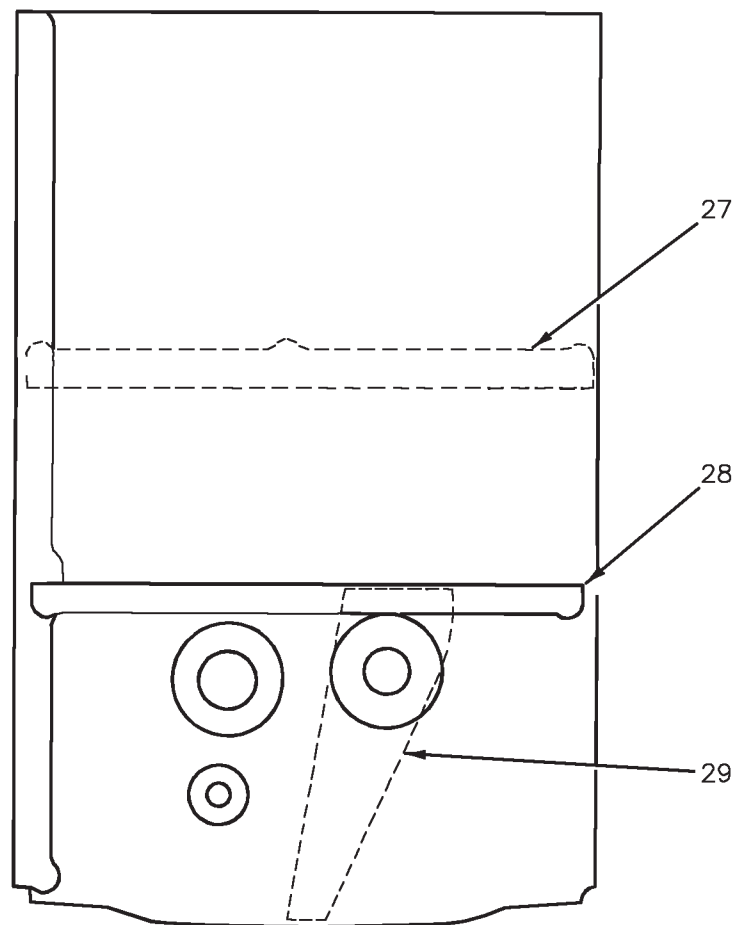


Figure 4. Aft Center Fuselage Keel (Sheet 2)



VIEW LOOKING FORWARD

B

Figure 4. Aft Center Fuselage Keel (Sheet 3)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 1 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 2 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 3 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 4 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 5 | Web | 7075-T76 Alclad, Sheet | Surface |
| 6 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 7 | Plate | 7075-T7351 Al Aly, Plate | Pitting |
| 8 | Web | 7075-T76 Alclad, Sheet | Surface |
| 9 | Former | 7075-T7351 Al Aly, Bar | Pitting |
| 10 | Bracket | 7075-T62 Alclad, Sheet | Surface |
| 11 | Longeron | 7075-T73511 Al Aly, Bar | Pitting |
| 12 | Bracket | 7075-T62 Al Aly, Sheet | Pitting |
| 13 | Web | 7075-T76 Alclad, Sheet | Surface |
| 14 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 15 | Fitting | 7075-T76511 Al Aly, Extrusion | Pitting |
| 16 | Emergency Stop | 7075-T7351 Al Aly, Plate | Pitting |
| 17 | Stiffener | 6061-T62 Al Aly, Sheet | Surface |
| 18 | Longeron | 7075-T76511 Al Aly, Extrusion | Pitting |
| 19 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 20 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 21 | Web | 7075-T6 Alclad, Sheet | Surface |
| 22 | Stringer | 7075-T76 Al Aly, Sheet | Pitting |
| 23 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 24 | Stringer | 7075-T76 Al Aly, Sheet | Pitting |
| 25 | Filler | 7075-T76 Alclad, Sheet | Surface |

Figure 4. Aft Center Fuselage Keel (Sheet 4)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 26 | Doubler | 7075-T6 Alclad, Sheet | Surface |
| 27 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 28 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 29 | Channel | 7075-T62 Alclad, Sheet | Surface |

Figure 4. Aft Center Fuselage Keel (Sheet 5)

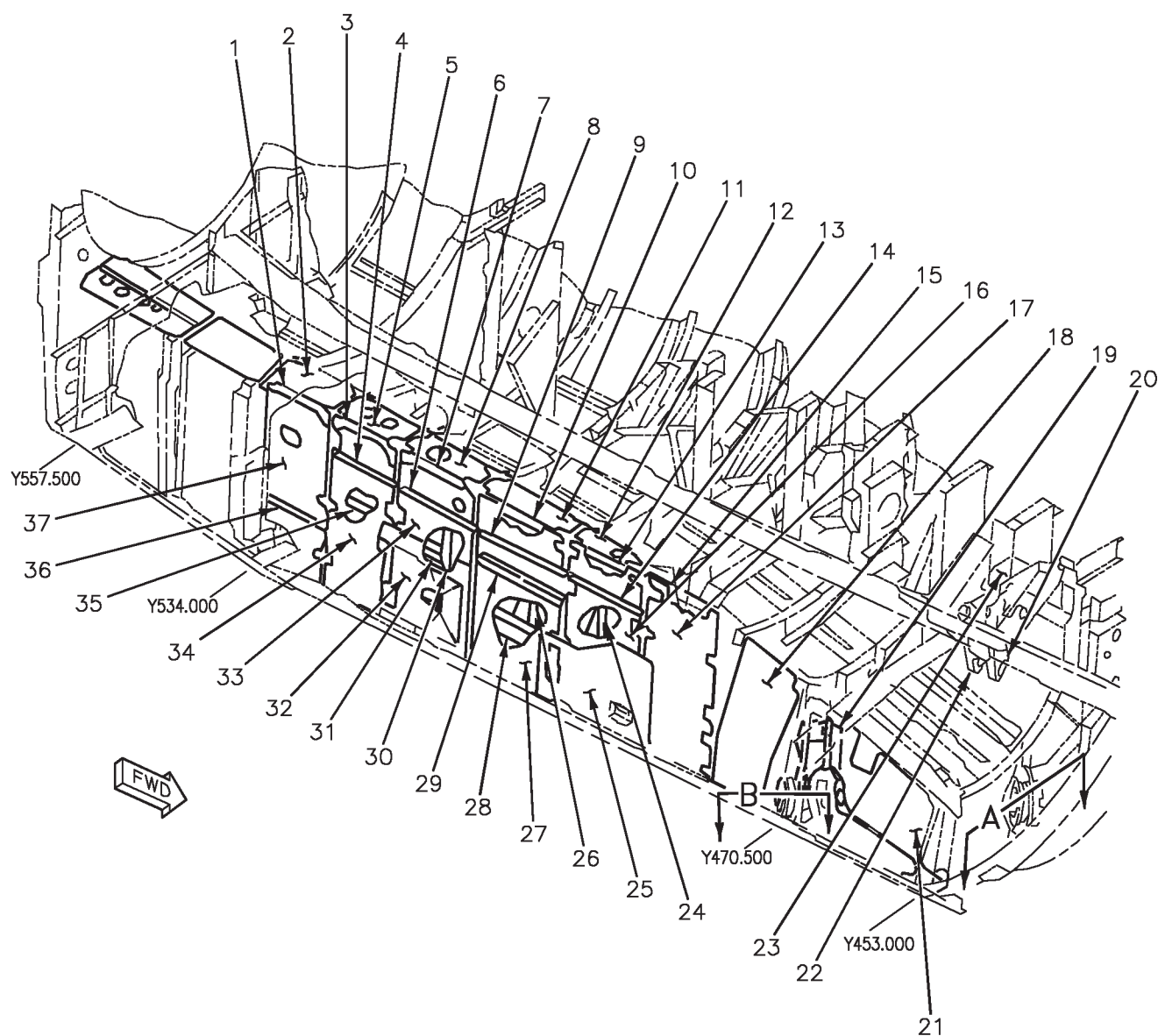


Figure 5. Main Landing Gear Wheel Well (Sheet 1)

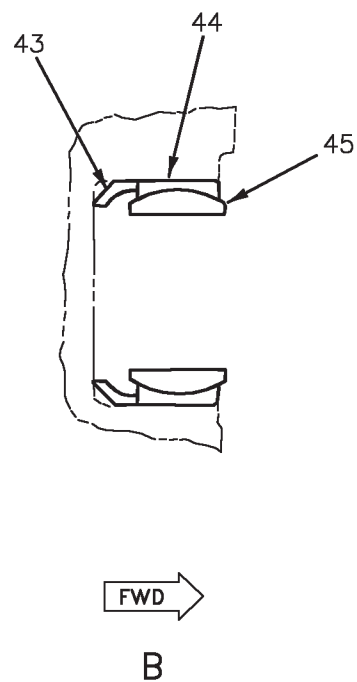
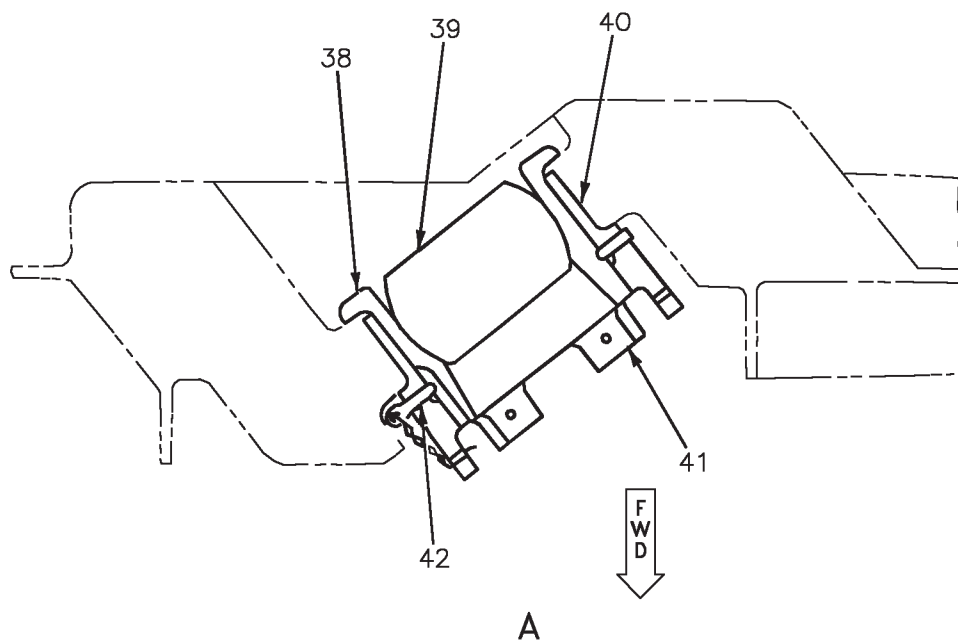


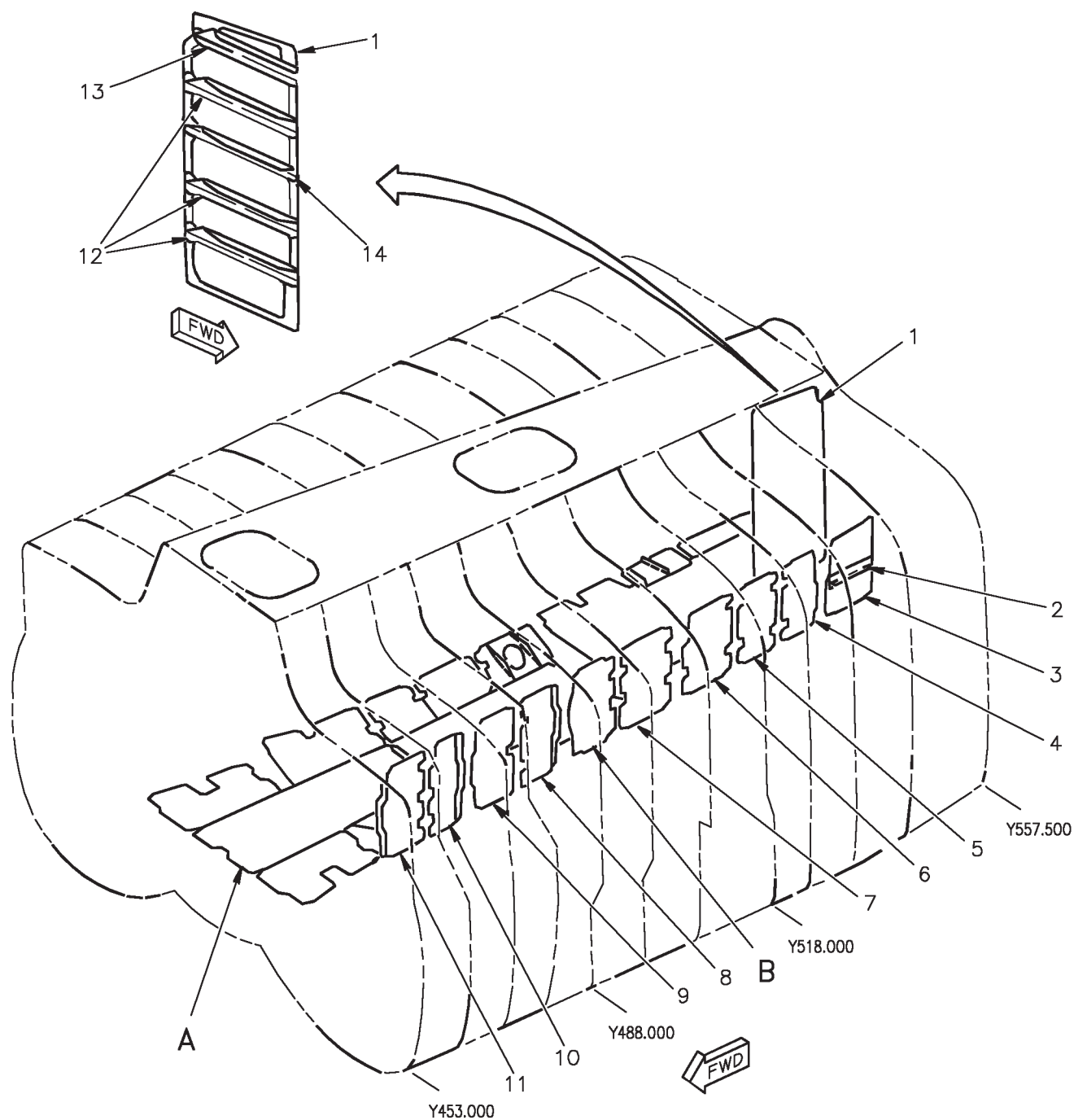
Figure 5. Main Landing Gear Wheel Well (Sheet 2)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|------------------|
| 1 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 2 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 3 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 4 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 5 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 6 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 7 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 8 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 9 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 10 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 11 | Web | 7075-T62 Alclad, Sheet | Surface |
| 12 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 13 | Angle | 7075-T62 Alclad, Sheet | Surface |
| 14 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 15 | Bracket | 7075-T62 Alclad, Sheet | Surface |
| 16 | Web | 7075-T6 Alclad, Sheet | Surface |
| 17 | Web | 7075-T6 Alclad, Sheet | Surface |
| 18 | Web | 7075-T6 Alclad, Sheet | Surface |
| 19 | Support Assy | 7049-T7351 Al Aly, Forging | Pitting |
| 20 | Bushing | 17-4 PH CRES, Bar | — |
| 21 | Web | 7075-T6 Alclad, Sheet | Surface |
| 22 | Support | HP9-4-20 STL FORG, Forging | Surface, Pitting |
| 23 | Bracket | 7075-T62 Alclad, Sheet | Surface |
| 24 | Bracket | 7075-T62 Alclad, Sheet | Surface |
| 25 | Adapter | 7050-T73651 Al Aly, Plate | Pitting |

Figure 5. Main Landing Gear Wheel Well (Sheet 3)

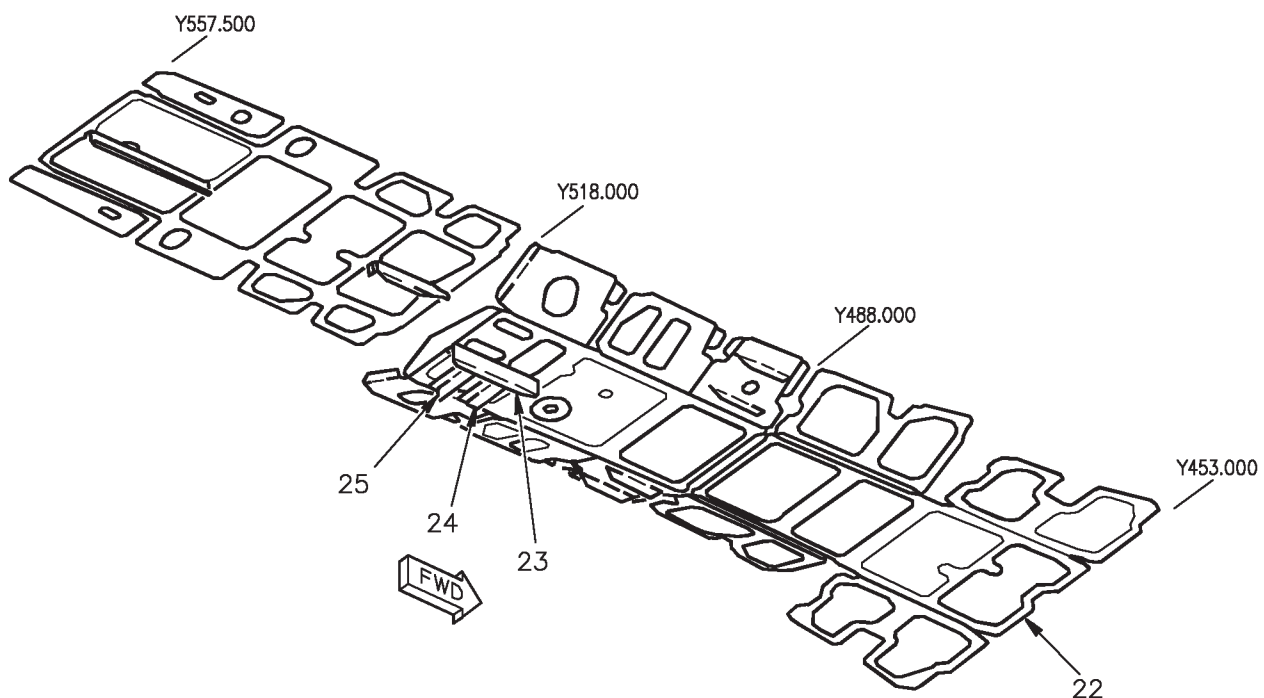
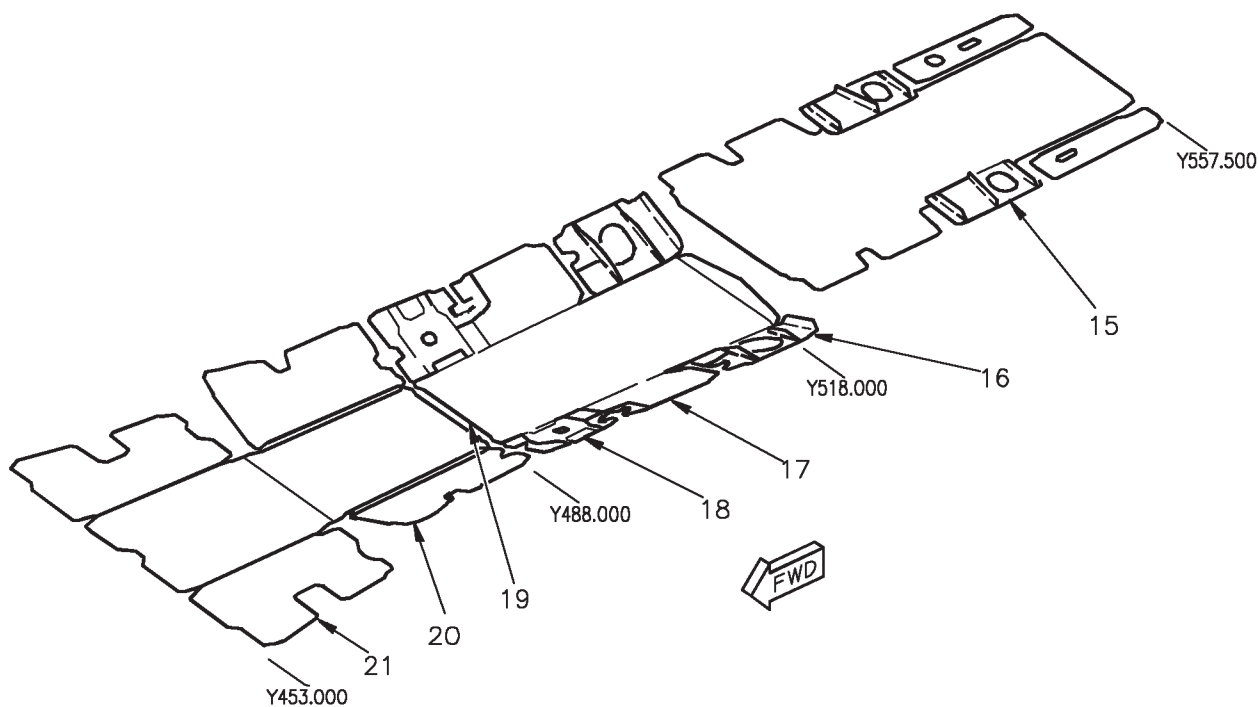
| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|-----------------------|---------------------------------|----------------|
| 26 | Bracket | 7075-T62 Alclad, Sheet | Surface |
| 27 | Web | 7075-T6 Alclad, Sheet | Surface |
| 28 | Web | 7075-T62 Alclad, Sheet | Surface |
| 29 | Plate | 7075-T6 Al Aly, Sheet | Surface |
| 30 | Plate | 7075-T62 Alclad, Sheet | Surface |
| 31 | Bracket | 7075-T62 Alclad, Sheet | Surface |
| 32 | Adapter | 7050-T73651 Al Aly, Plate | Pitting |
| 33 | Web | 7075-T6 Alclad, Sheet | Surface |
| 34 | Web | 7075-T6 Alclad, Sheet | Surface |
| 35 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 36 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 37 | Web | 7075-T6 Alclad, Sheet | Surface |
| 38 | Inboard Bearing Race | 15-5 PH CRES | — |
| 39 | Inboard Bearing Ball | Beryllium Copper | Discoloration |
| 40 | Sleeve | CDA-172 Beryllium Copper, Bar | Discoloration |
| 41 | Nut | 15-5 PH CRES | — |
| 42 | Casting | 17-4 PH CRES, Casting | — |
| 43 | Spacer | 6061-T6511 Al Extrusion, Tubing | Pitting |
| 44 | Outboard Bearing Race | 15-5 PH CRES | — |
| 45 | Outboard Bearing Ball | Beryllium Copper | Discoloration |

Figure 5. Main Landing Gear Wheel Well (Sheet 4)



161353 THRU 161741

Figure 6. Number 4 Fuel Tank Floor and Webs (Sheet 1)



A

161353 THRU 161741

18AC-SRM-50-(104-2)20-SCAN

Figure 6. Number 4 Fuel Tank Floor and Webs (Sheet 2)

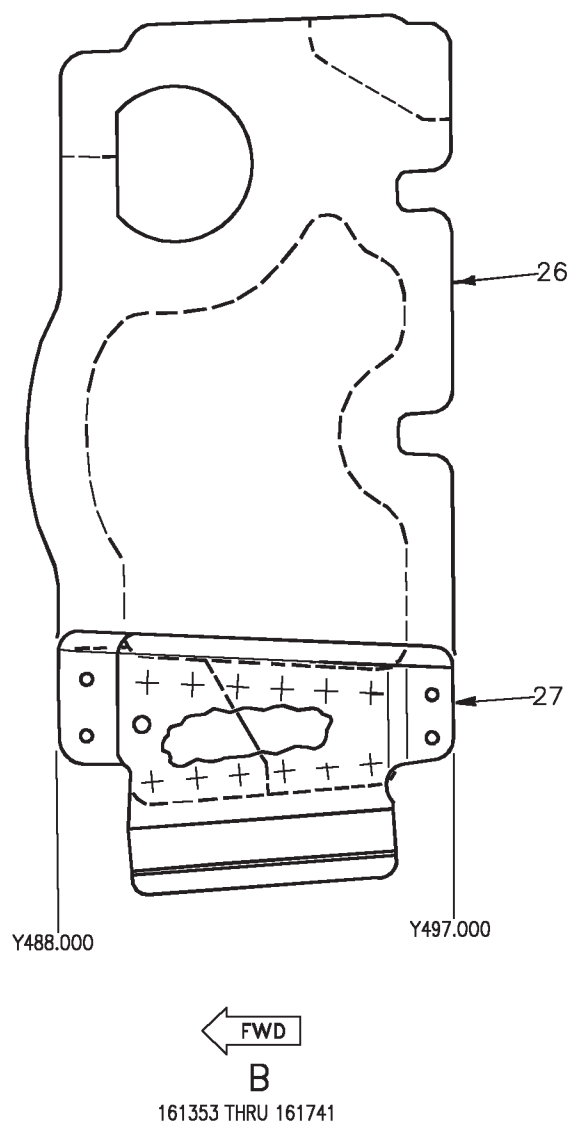


Figure 6. Number 4 Fuel Tank Floor and Webs (Sheet 3)

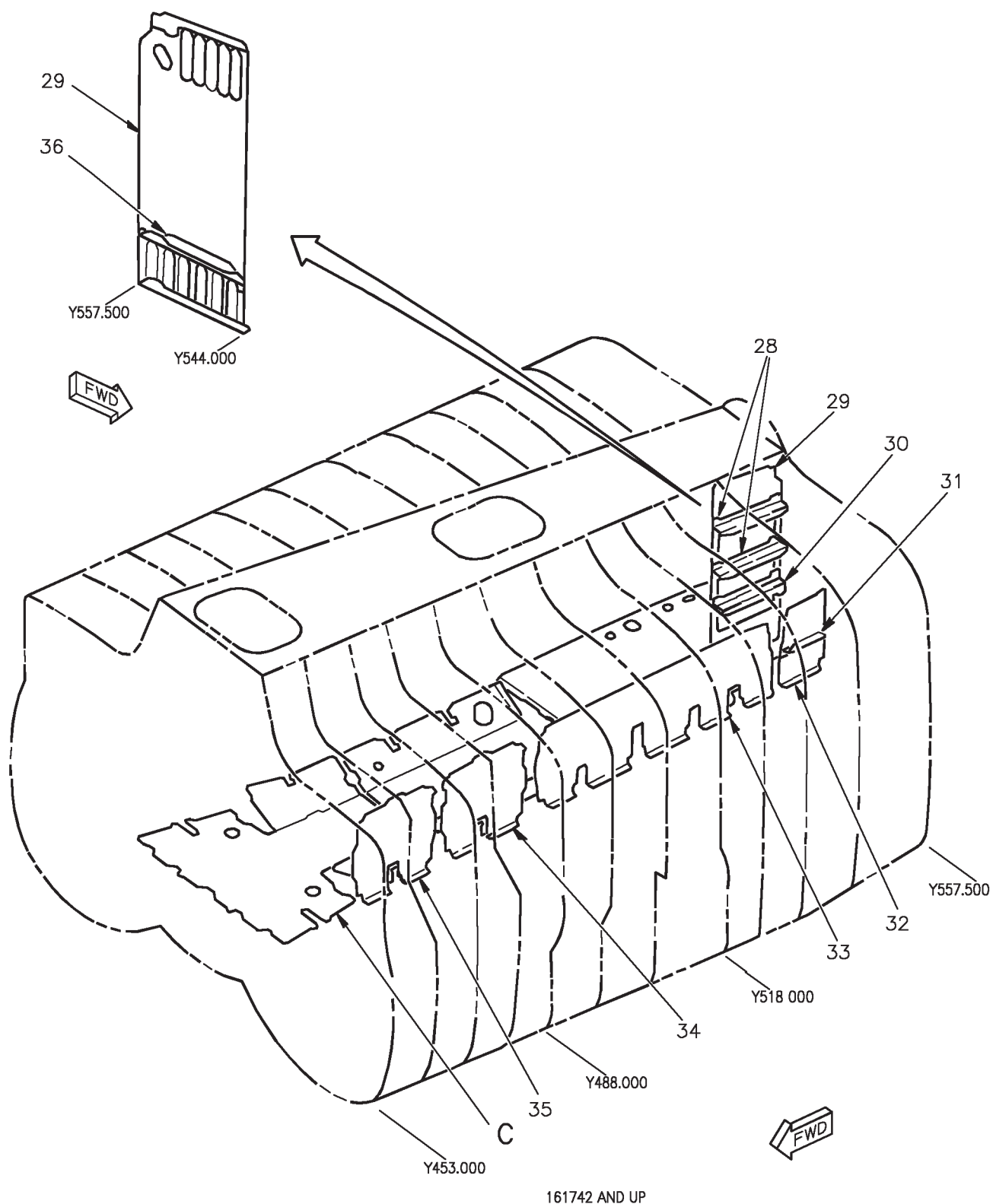
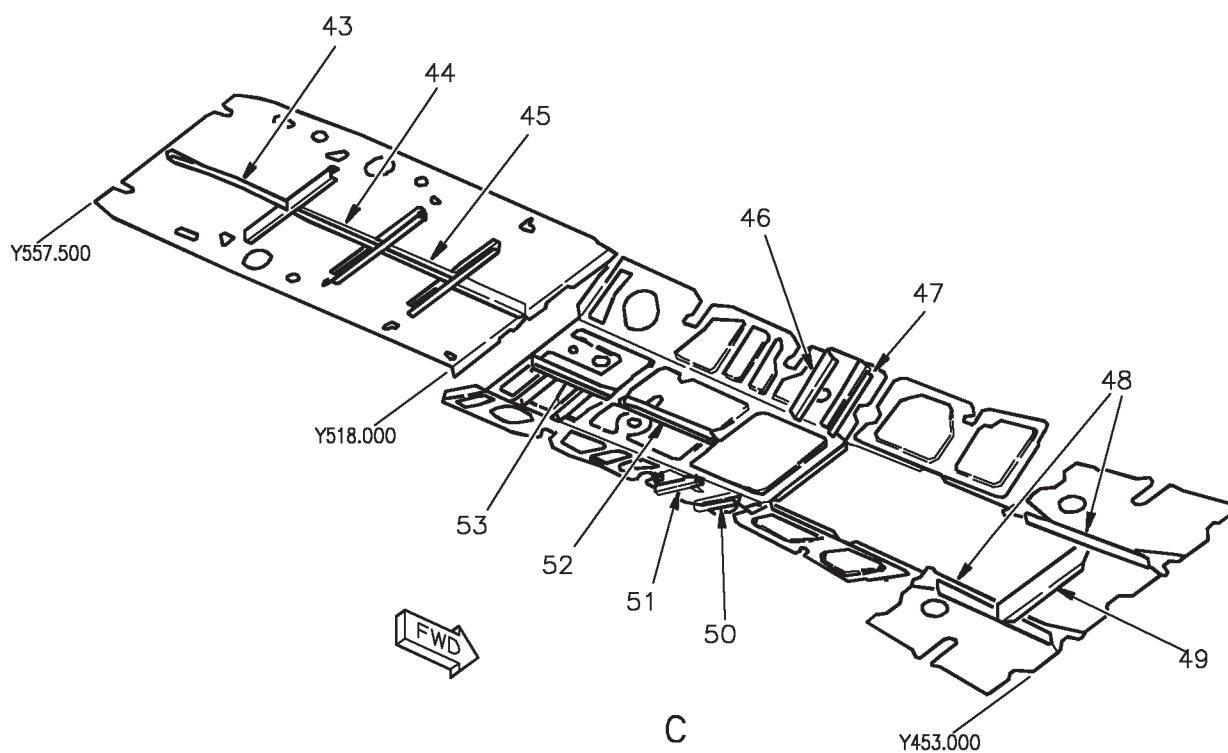
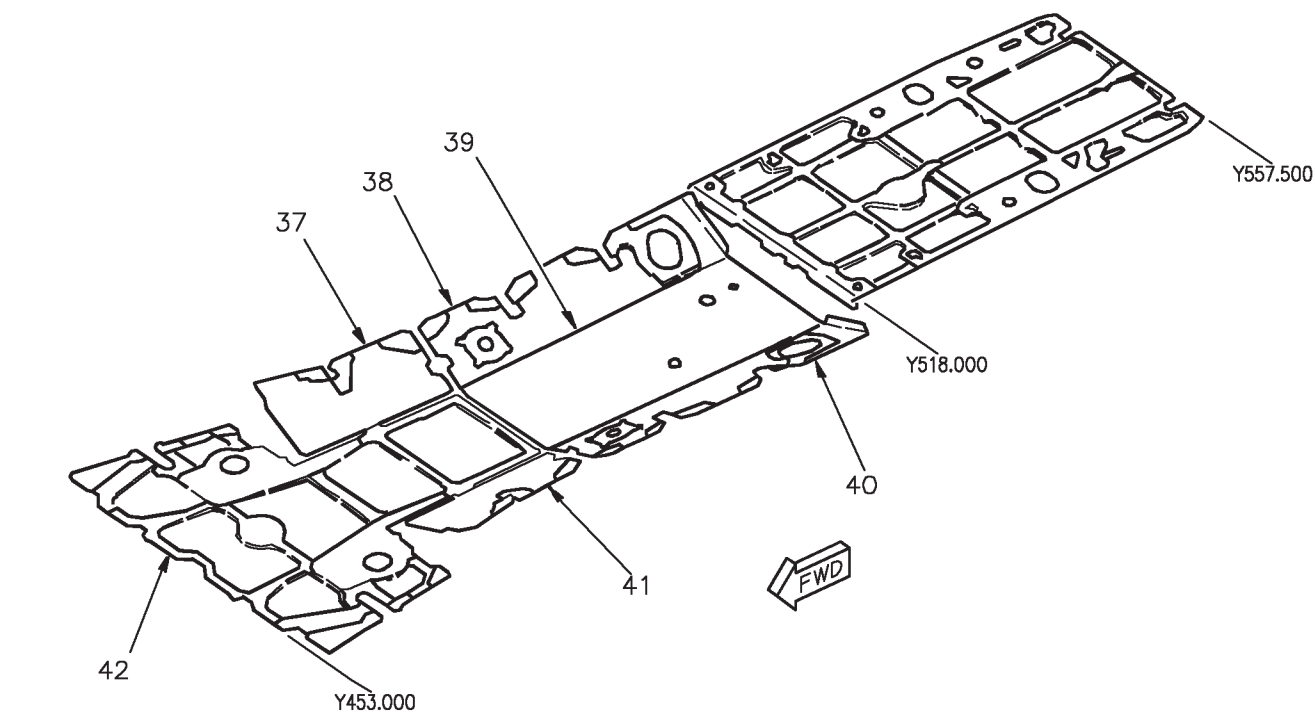


Figure 6. Number 4 Fuel Tank Floor and Webs (Sheet 4)



C

161742 AND UP

Figure 6. Number 4 Fuel Tank Floor and Webs (Sheet 5)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 1 | Web | 7075-T76 Alclad, Sheet | Surface |
| 2 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 3 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 4 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 5 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 6 | Web | 7075-T76 Alclad, Sheet | Surface |
| 7 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 8 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 9 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 10 | Web | 7075-T7351 Al Aly, Plate | Surface |
| 11 | Web | 7075-T7351 Al Aly, Plate | Surface |
| 12 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 13 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 14 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 15 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 16 | Support | 7075-T7351 Al Aly, Plate | Pitting |
| 17 | Plate | 7075-T76 Al Aly, Sheet | Surface |
| 18 | Support | 7075-T7351 Al Aly, Plate | Surface |
| 19 | Floor | 7075-T6 Al Aly, Sheet | Surface |
| 20 | Floor | 7075-T76 Al Aly, Sheet | Surface |
| 21 | Floor | 7075-T76 Al Aly, Sheet | Surface |
| 22 | Floor | 7075-T76 Al Aly, Sheet | Surface |
| 23 | Channel | 7075-T62 Al Aly, Sheet | Surface |
| 24 | Angle | 7075-T62 Al Aly, Sheet | Surface |
| 25 | Angle | 7075-T62 Al Aly, Sheet | Surface |

Figure 6. Number 4 Fuel Tank Floor and Webs (Sheet 6)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 26 | Plate | 7075-T7351 Al Aly, Plate | Surface |
| 27 | Intercostal | 7075-0 Alclad, Sheet | Surface |
| 28 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 29 | Web | 7075-T62 Al Aly, Sheet | Surface |
| 30 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 31 | Stiffener | 7075-0 Al Aly, Extrusion | Pitting |
| 32 | Web | 7075-T62 Al Aly, Sheet | Surface |
| 33 | Web | 7075-T62 Al Aly, Sheet | Surface |
| 34 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 35 | Web | 7075-T76 Al Aly, Sheet | Surface |
| 36 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 37 | Web | 7075-T76 Alclad, Sheet | Surface |
| 38 | Web | 7075-0 Al Aly, Sheet | Surface |
| 39 | Web | 7075-T6 Alclad, Sheet | Surface |
| 40 | Web | 7075-0 Al Aly, Sheet | Surface |
| 41 | Web | 7075-T76 Alclad, Sheet | Surface |
| 42 | Web | 7075-T76 Alclad, Sheet | Surface |
| 43 | Stiffener | 7075-T6 Al Aly, Sheet | Surface |
| 44 | Stiffener | 7075-T6 Al Aly, Sheet | Surface |
| 45 | Stiffener | 7075-T6 Al Aly, Sheet | Surface |
| 46 | Channel | 7075-T62 Al Aly, Sheet | Surface |
| 47 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |
| 48 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 49 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |
| 50 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |

Figure 6. Number 4 Fuel Tank Floor and Webs (Sheet 7)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|------------|-------------------------|------------------------|-------------------|
| 51 | Channel | 7075-T62 Al Aly, Sheet | Surface |
| 52 | Stiffener | 7075-0 Al Aly, Sheet | Surface |
| 53 | Stiffener | 7075-0 Al Aly, Sheet | Surface |

Figure 6. Number 4 Fuel Tank Floor and Webs (Sheet 8)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

AFT CENTER FUSELAGE SEALS AND SEALING

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |

Alphabetical Index

| Subject | Page No. |
|--------------------|----------|
| Introduction | 1 |
| Sealing..... | 1 |
| Seals | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. Exterior sealing on the aft center fuselage is for corrosion control. Sealing prevents moisture entry, dissimilar metal contact, and provides a barrier between structure, skin, and elements.

3. **SEALING.** Use MIL-S-83430, class B-4 sealing compound (WP010 00 and A1-F18AC-SRM-200, WP011 00), see figure 1. Use class B for fay surface, form in place, butt joint, and fastener sealing. MIL-S-8802 or MIL-S-81773 is the alternate, except when graphite epoxy structure or form in place door seals are used.

a. Removable covers/doors or access panels on mold line surfaces are sealed with form in place seals.

NOTE

Fay surface and butt joint sealing may be done simultaneously by being sure sealant squeeze out from the fay surface fills the butt joint gap.

b. The periphery of all external permanent skins, structure, components or parts are fay surface sealed. This includes main landing gear

doors, wells, missile wells, air intakes, auxiliary power unit bay, and airframe mounted accessory drive (AMAD).

c. The periphery of all external permanent skins, structure, components, or parts are butt joint or fillet sealed. Some areas are categorized as requiring exterior sealant smoothness requirements; the main landing gear doors, wells, missile wells, air intakes, auxiliary power unit bay, and airframe mounted accessory drive (AMAD) are in this category.

d. All permanent fasteners except aluminum rivets, see e. below, installed in mold line and other exterior categorized surfaces are wet installed with sealing compound.

e. Aluminum rivets in mold line surfaces and exterior categorized areas are installed wet with epoxy primer or sealant, except fast rivets, which are wet installed with primer.

4. **SEALS.** See figure 1.

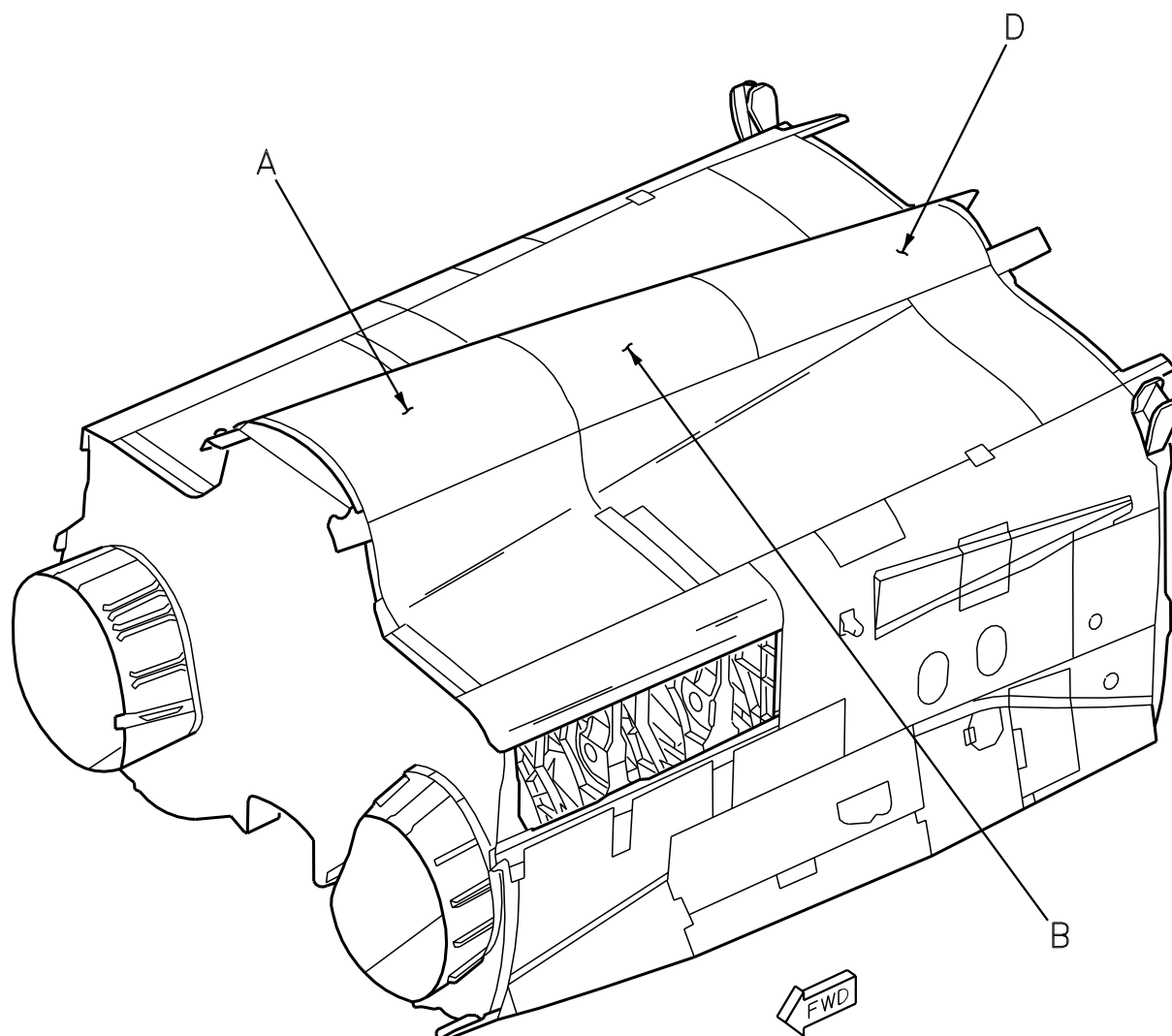


Figure 1. Seals and Sealing (Sheet 1)

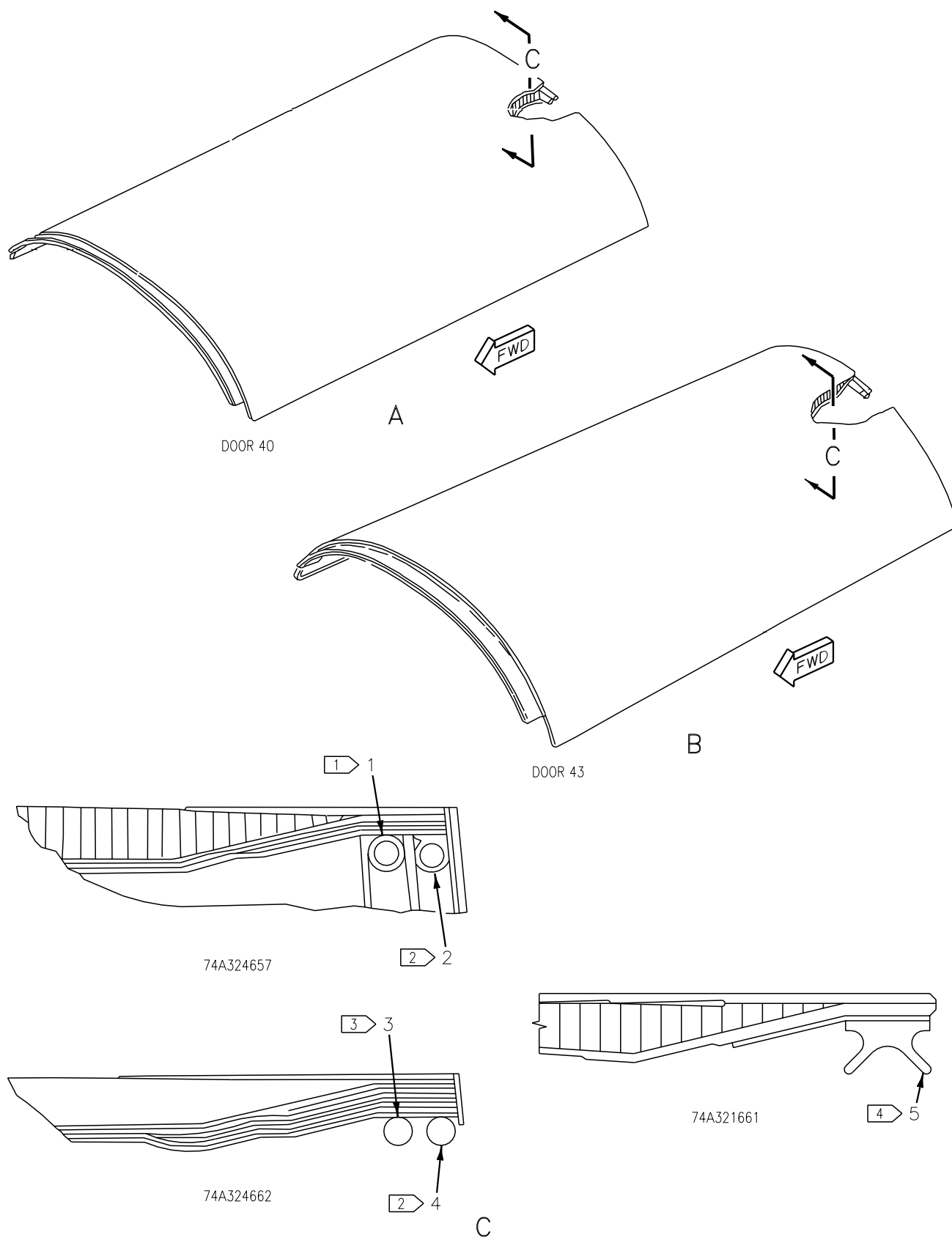
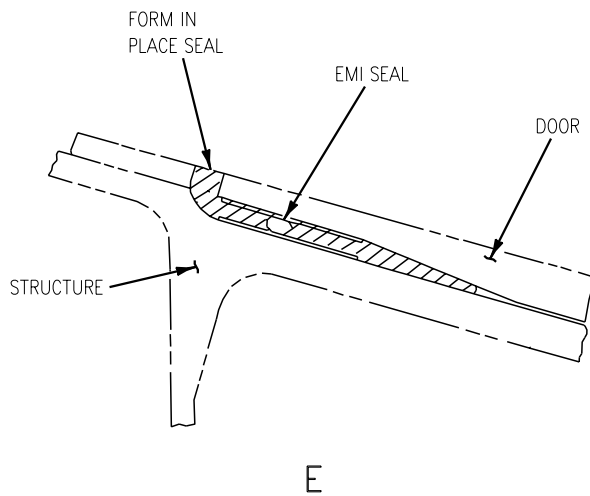
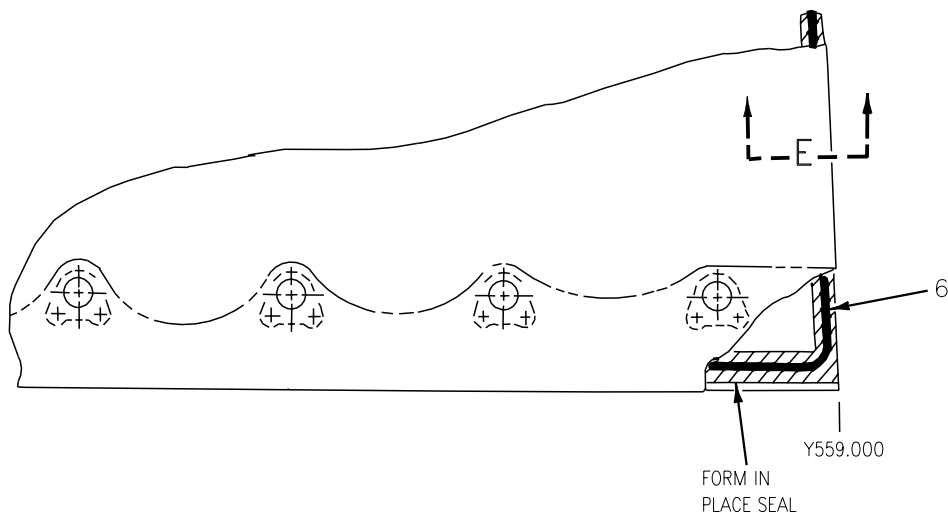


Figure 1. Seals and Sealing (Sheet 2)



| INDEX NO. | NOMENCLATURE |
|-----------|--------------|
| 1 | EMI SEAL |
| 2 | WEATHER SEAL |
| 3 | EMI SEAL |
| 4 | WEATHER SEAL |
| 5 | WEATHER SEAL |
| 6 | EMI SEAL |



FORM IN PLACE WITH EMI SEAL INSTALLED
ON STRUCTURE FOR DOORS 40, 43, AND 49.

LEGEND

- 1 163427 THRU 163782
- 2 163427 THRU 164046
- 3 163985 THRU 164046
- 4 164047 AND UP

Figure 1. Seals and Sealing (Sheet 3)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

AFT CENTER FUSELAGE FINISH SYSTEM AND MARKINGS

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Stripping..... | WP007 00 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Landing Gear, Arresting Hook, And Launch Bar, Finish System And Markings..... | WP042 00 |
| Aircraft Weapons Systems Cleaning and Corrosion Control..... | NAVAIR 01-1A-509 |
| Structure Repair, Center Fuselage | A1-F18AE-SRM-700 |

Alphabetical Index

| Subject | Page No. |
|----------------------------|----------|
| Description | 1 |
| Aircraft Refinishing | 3 |
| Finish System | 2 |
| Markings..... | 3 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. Aft center fuselage encloses the air intake, main landing gear and doors, and fuel cells. Structure and skins are aluminum, graphite epoxy, steel, and titanium. On 163985 AND UP, some parts require different damage evaluation which may affect finish system application. For identification of these parts refer to applicable work package in A1-F18AE-SRM-700.

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

MIL-P-23377 TY1
MIL-P-85582,
TY1CL1 or CL2

Primer
Primer

Support Equipment Required

None

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|------------------------|--|
| MIL-P-23377, TY2 | Primer |
| MIL-P-85582, TY2CL1 | Primer |
| MIL-C-83286 | Aliphatic Polyurethane Enamel |
| MIL-C-85285, TY1 | Coating, Polyurethane, High Solids |

3. FINISH SYSTEM. See figure 1.**WARNING**

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

b. One coat MIL-P-23377, Type 2, Class 1 primer on mold line surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) White, FED-STD-595 color no. 17925, aliphatic polyurethane enamel:

- (a) Interior surface of dorsal deck.
- (b) Air intake duct.
- (c) Main landing gear wheel well surfaces.
- (d) Hoist fitting well (door 50).
- (e) AMAD bay (door 53).
- (f) APU bay (door 52).

(2) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.

(3) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.









(4) Gray, FED-STD-595 color no. 36320, aliphatic polyurethane enamel.

a. Markings are silk screen applied using contrasting commercial gray enamel. Use table 1 to determine applicable marking color number.

5. AIRCRAFT REFINISHING. On 161353 THRU 161925, if complete aircraft requires refinishing, use finish system color diagram shown on figure 1 for 161926 THRU 163175.

4. MARKINGS. See figures 2 and 3.

Table 1. Marking Color Number

| Finish System Color Number | | Marking Color Number |
|---|-----------------------------------|-----------------------------------|
|  3 | Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 35237 |
|  4 | Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 36375 |
|  1 | Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 35237 |
|  2 | Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 36320 |
| Gray, FED-STD-595 color no. 36495 | | Gray, FED-STD-595 color no. 36375 |
| LEGEND | | |
|  1 | 161353 THRU 161925. | |
|  2 | 161926 AND UP. | |
|  3 | F/A-18A 161926 THRU 161929. | |
|  4 | 161930 AND UP. | |

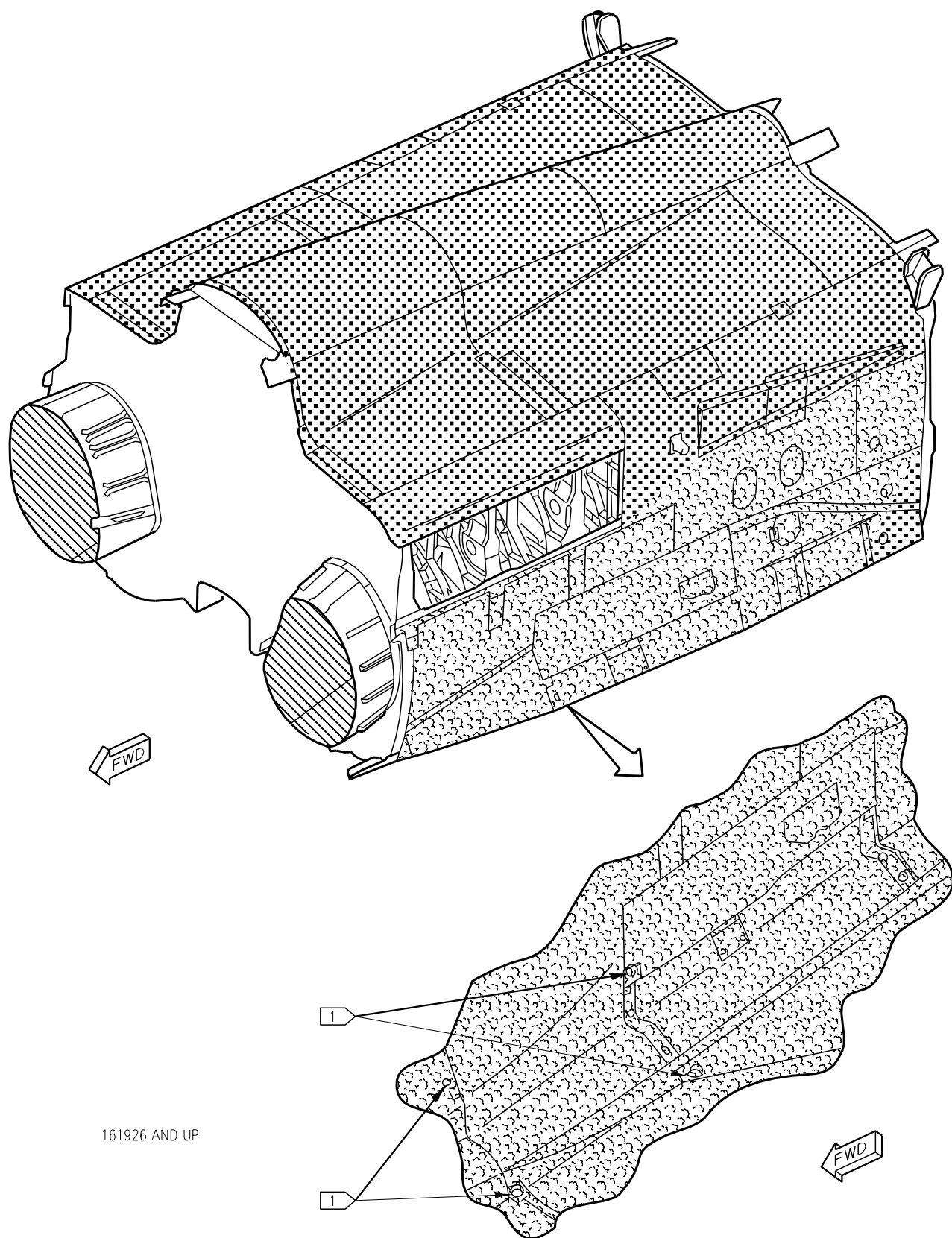


Figure 1. Finish System (Sheet 1)

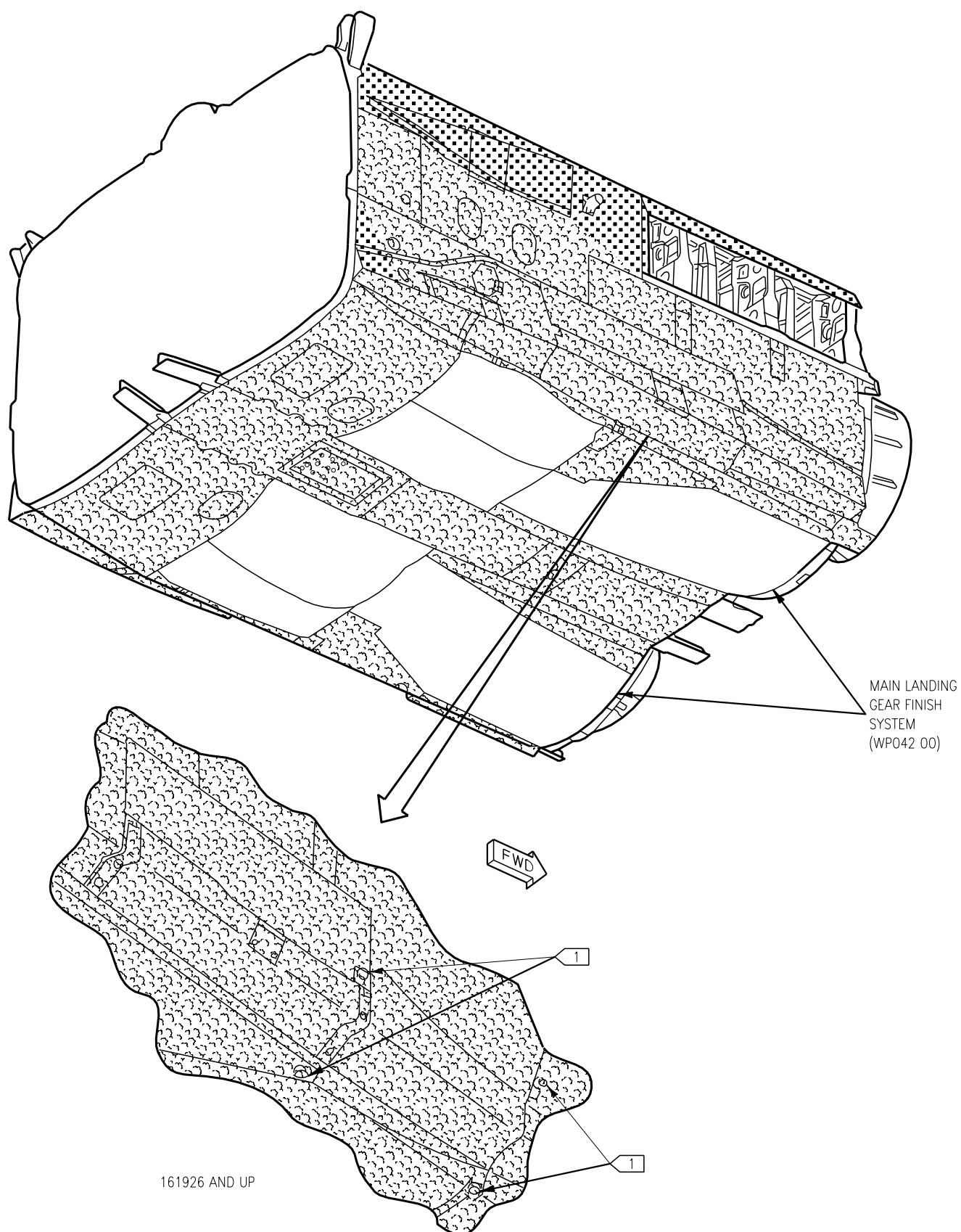


Figure 1. Finish System (Sheet 2)

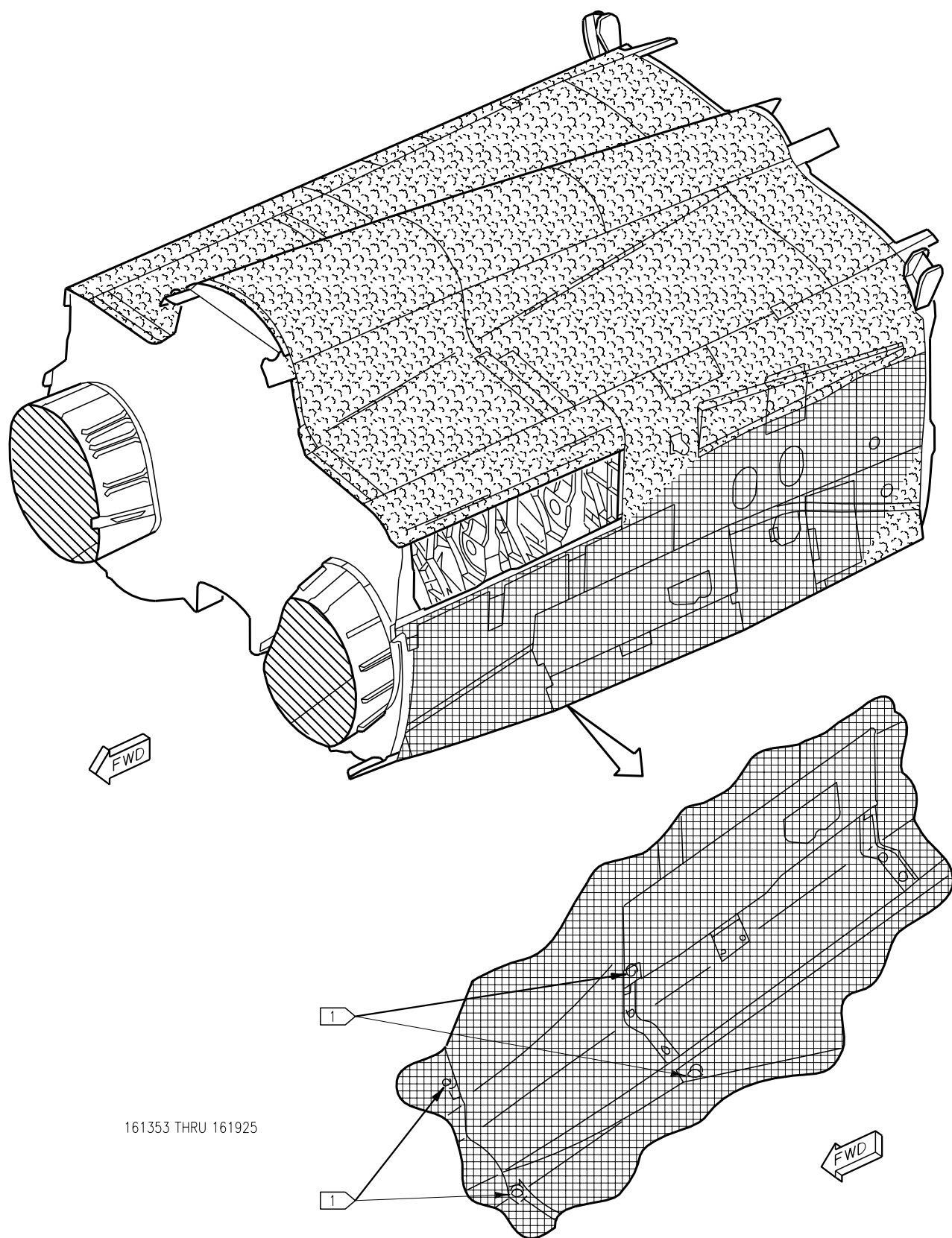


Figure 1. Finish System (Sheet 3)

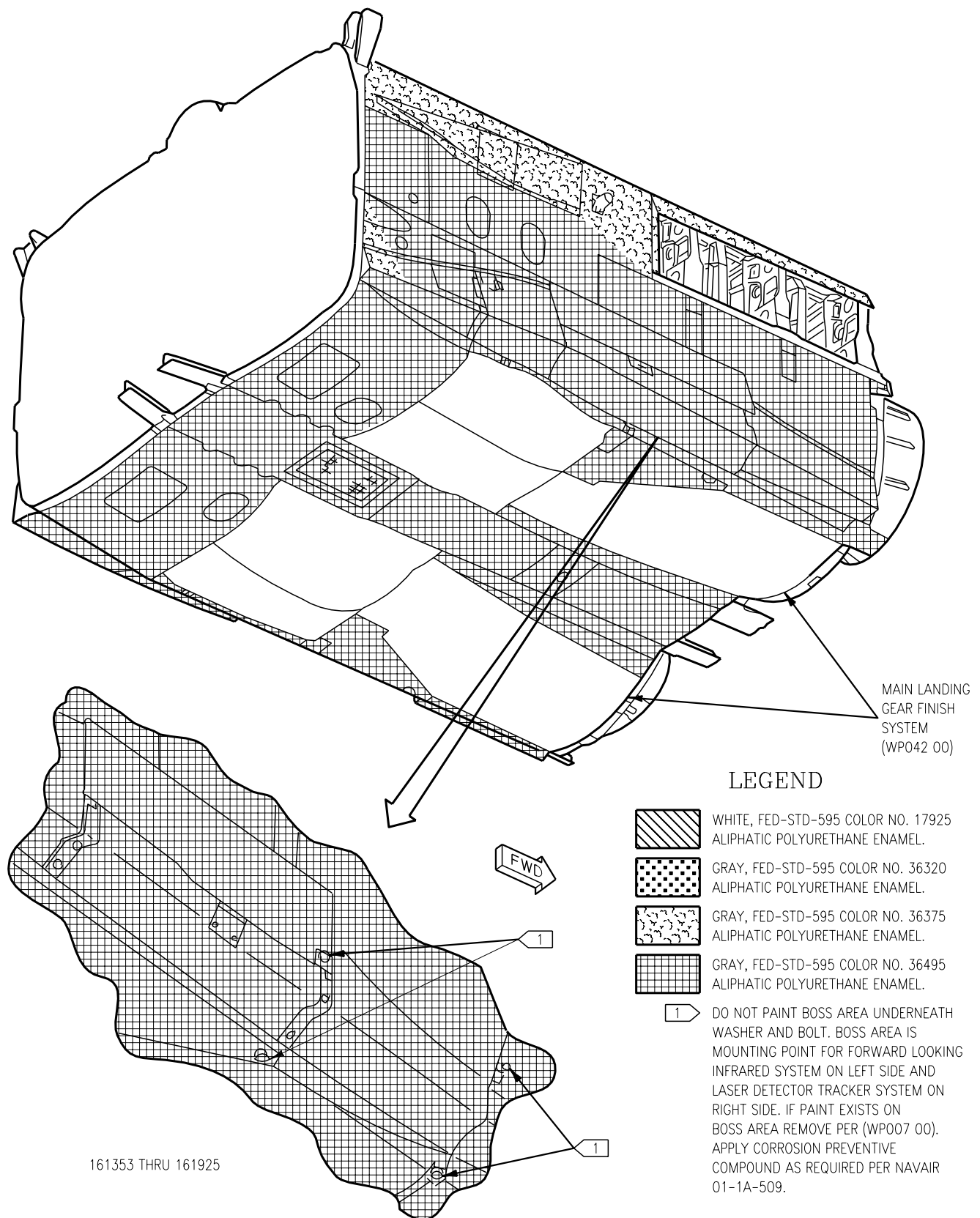


Figure 1. Finish System (Sheet 4)

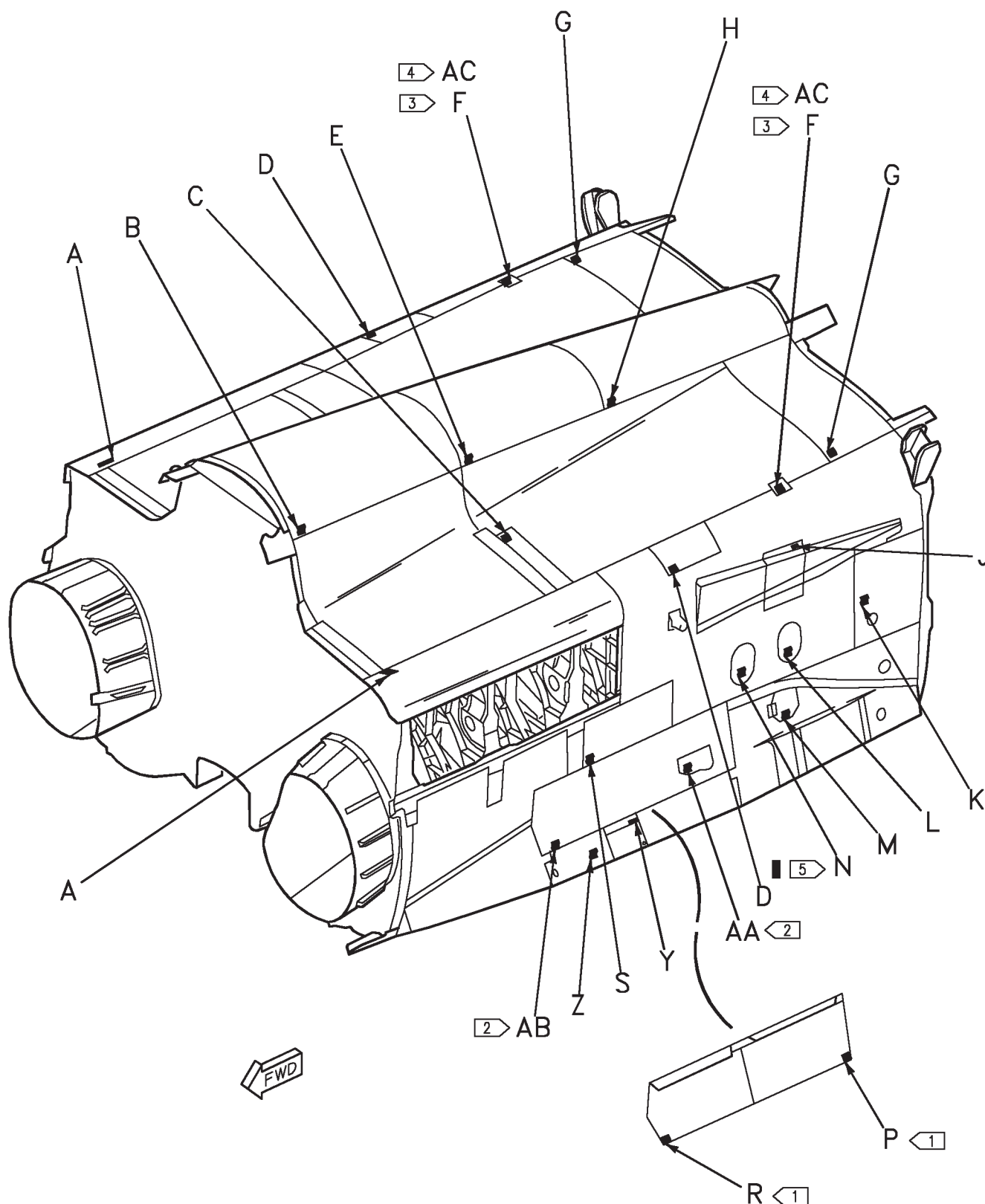


Figure 2. Door Markings (Sheet 1)

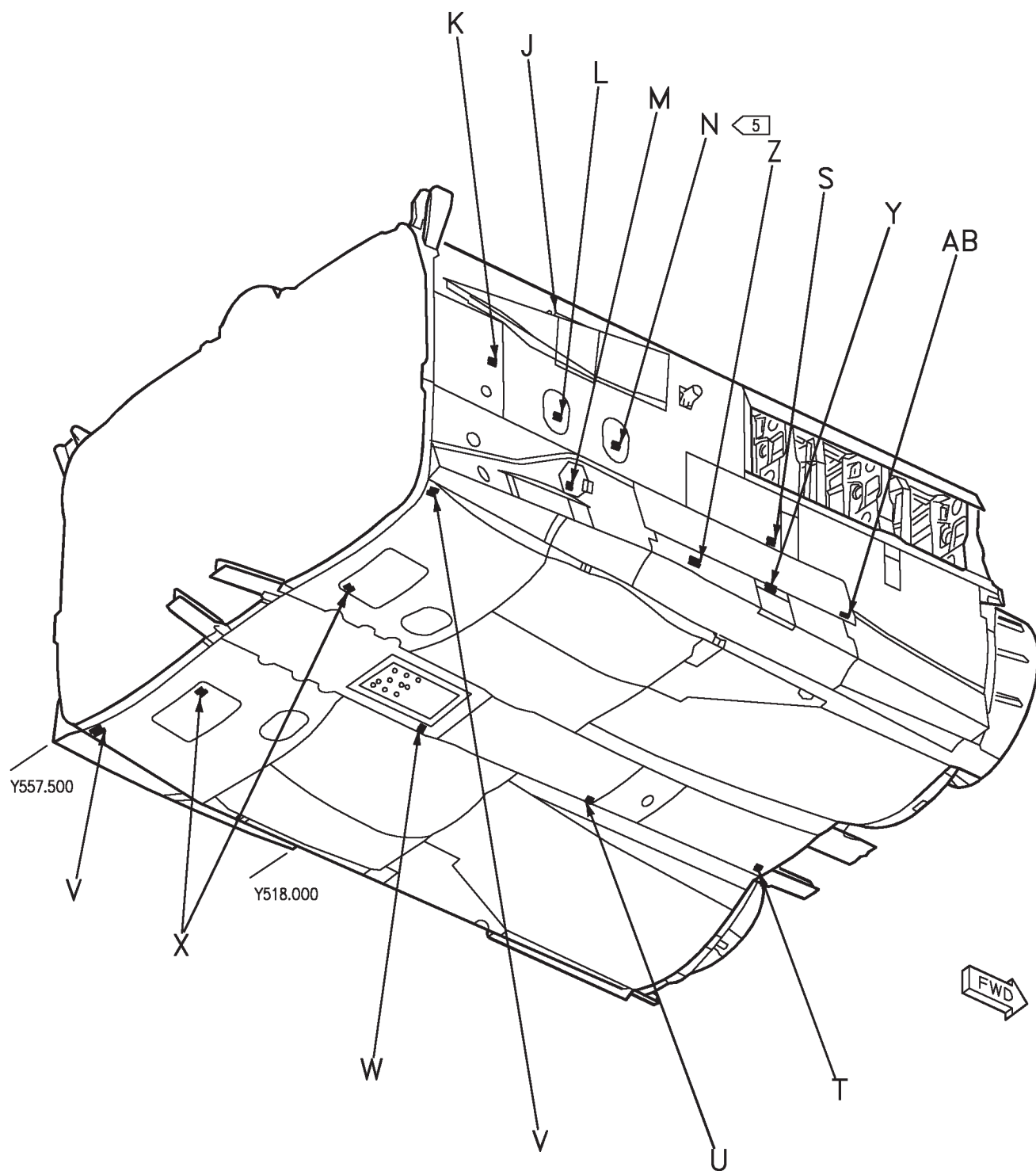


Figure 2. Door Markings (Sheet 2)

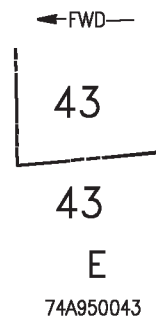
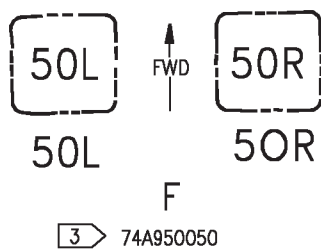
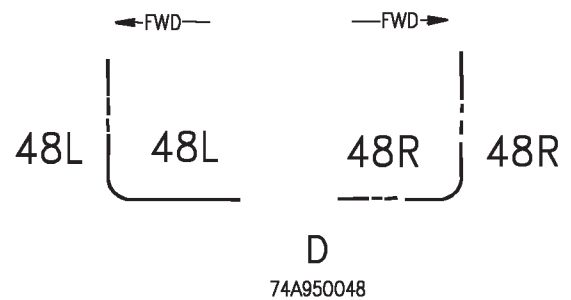
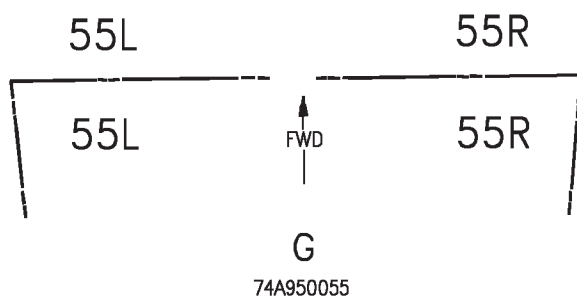
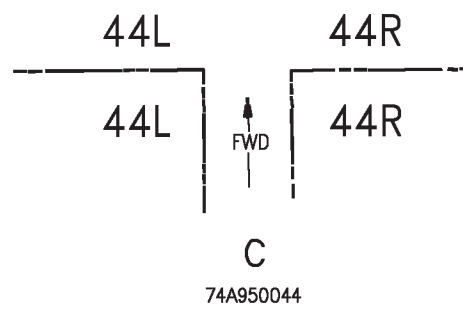
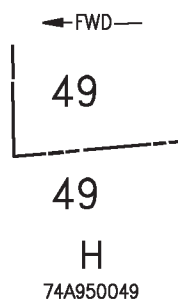
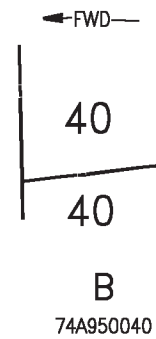
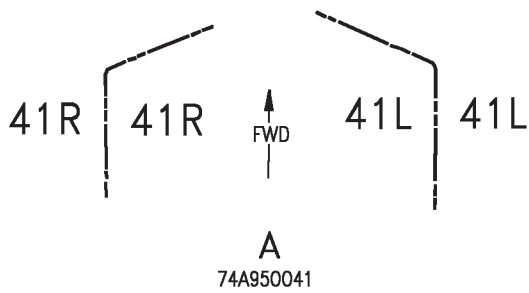


Figure 2. Door Markings (Sheet 3)

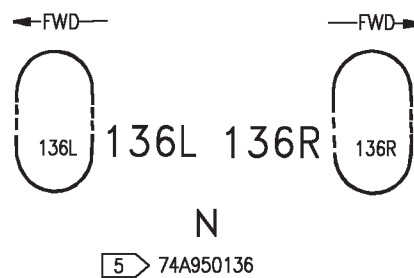
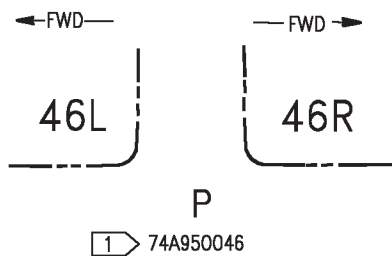
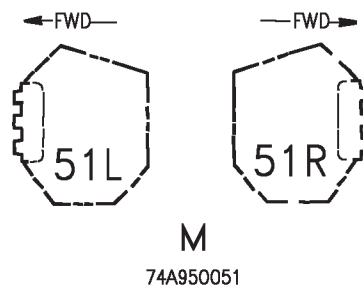
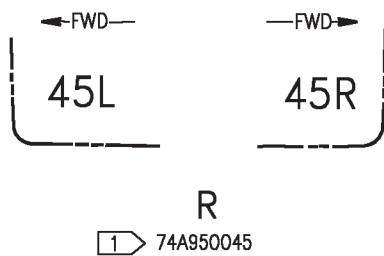
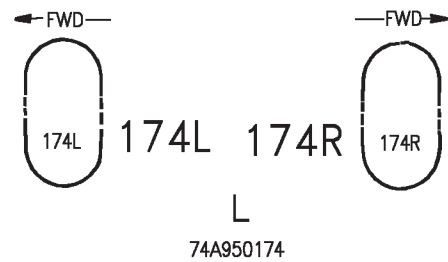
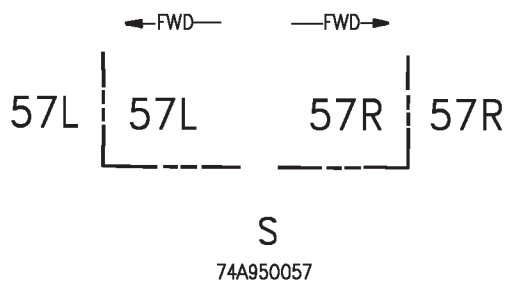
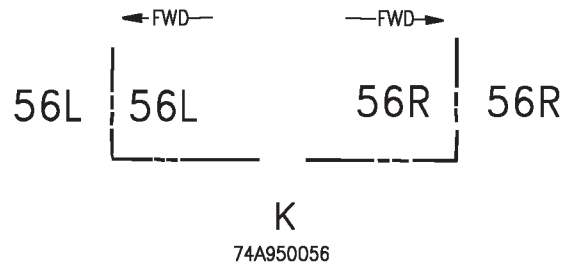
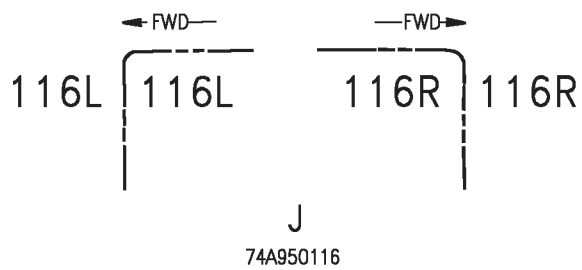


Figure 2. Door Markings (Sheet 4)

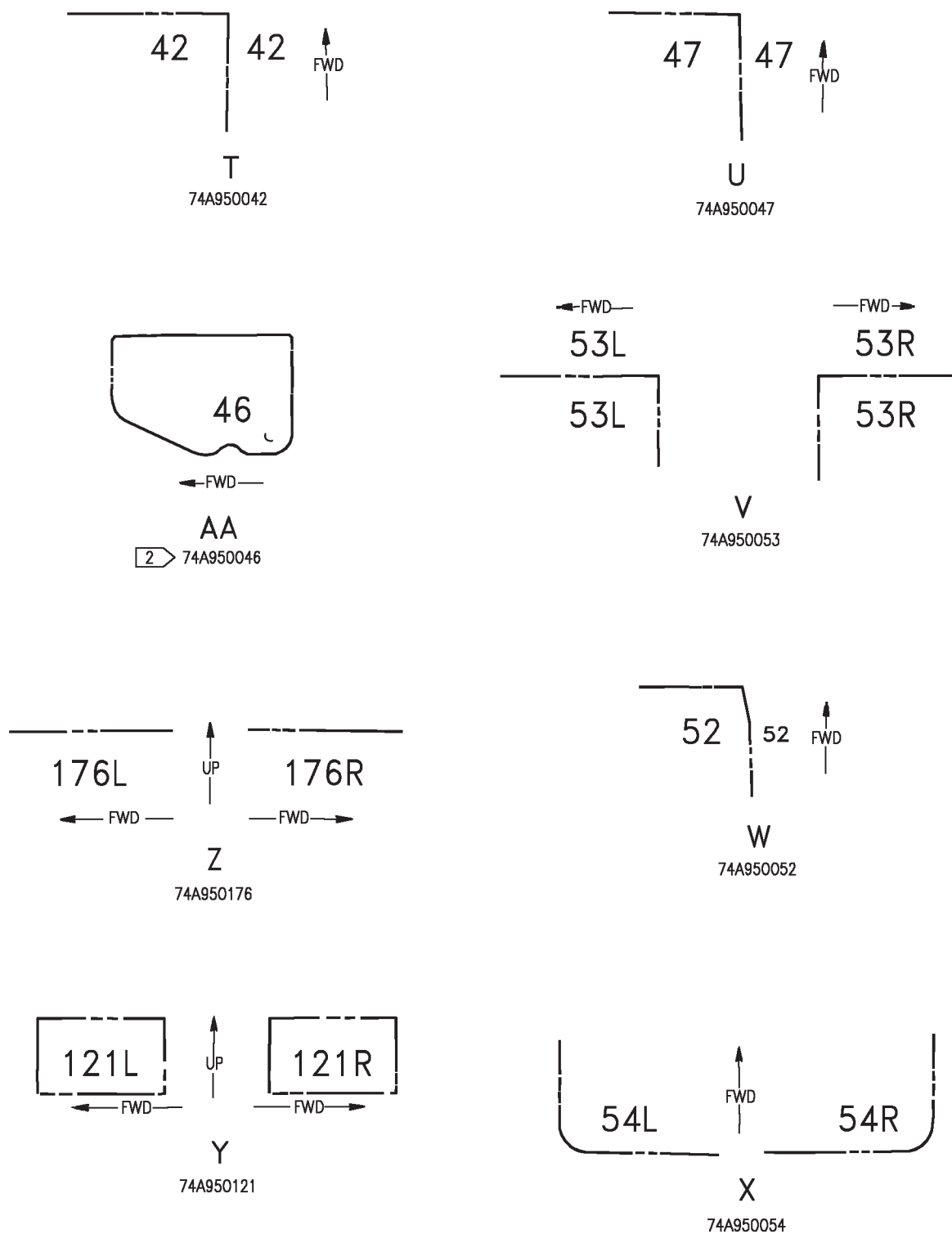


Figure 2. Door Markings (Sheet 5)



LEGEND

- 1 161353 THRU 161952
- 2 161953 AND UP
- 3 161353 THRU 161941
- 4 161942 AND UP
- 5 161353 THRU 163118.

Figure 2. Door Markings (Sheet 6)

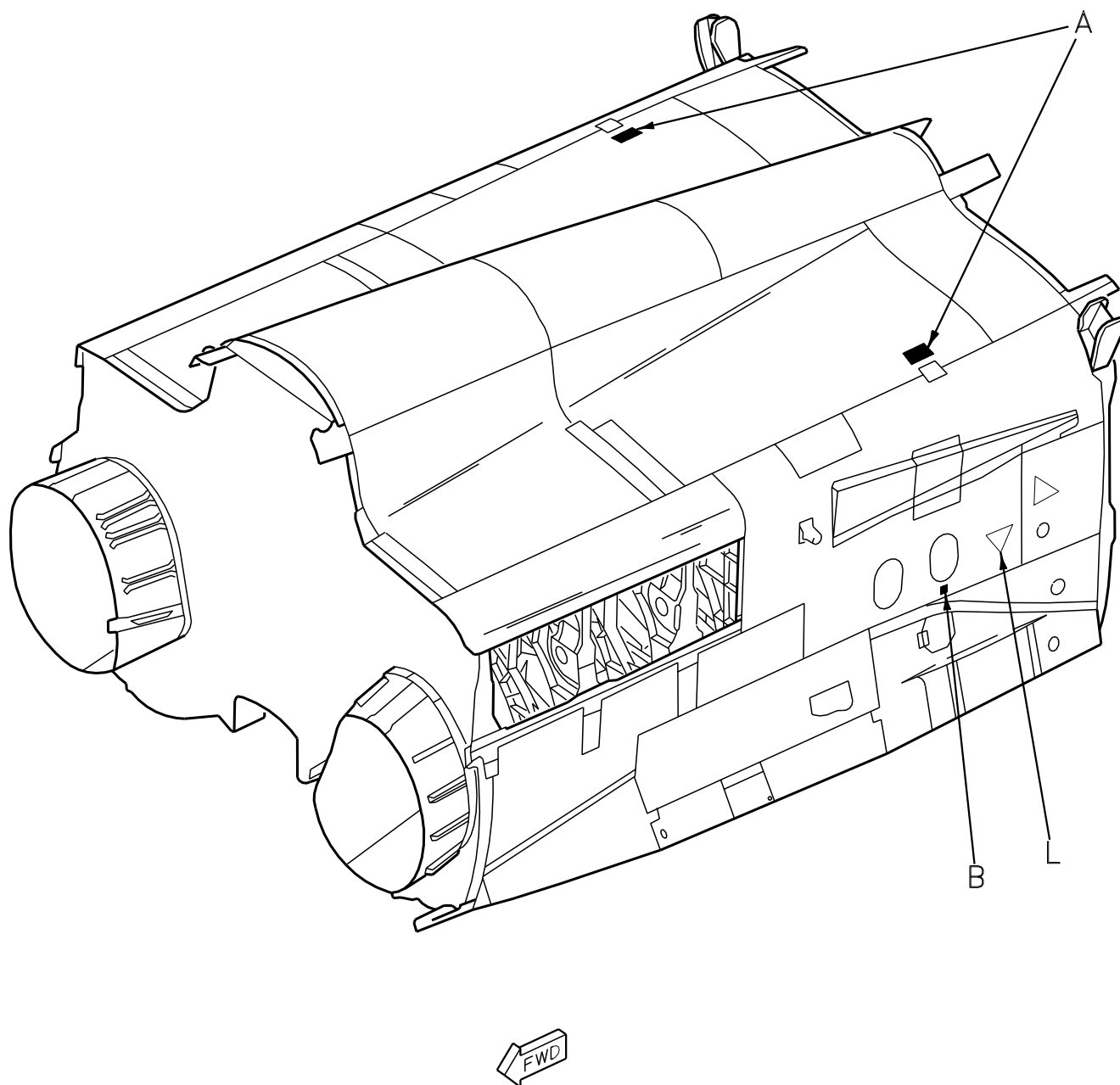


Figure 3. Instructional Markings (Sheet 1)

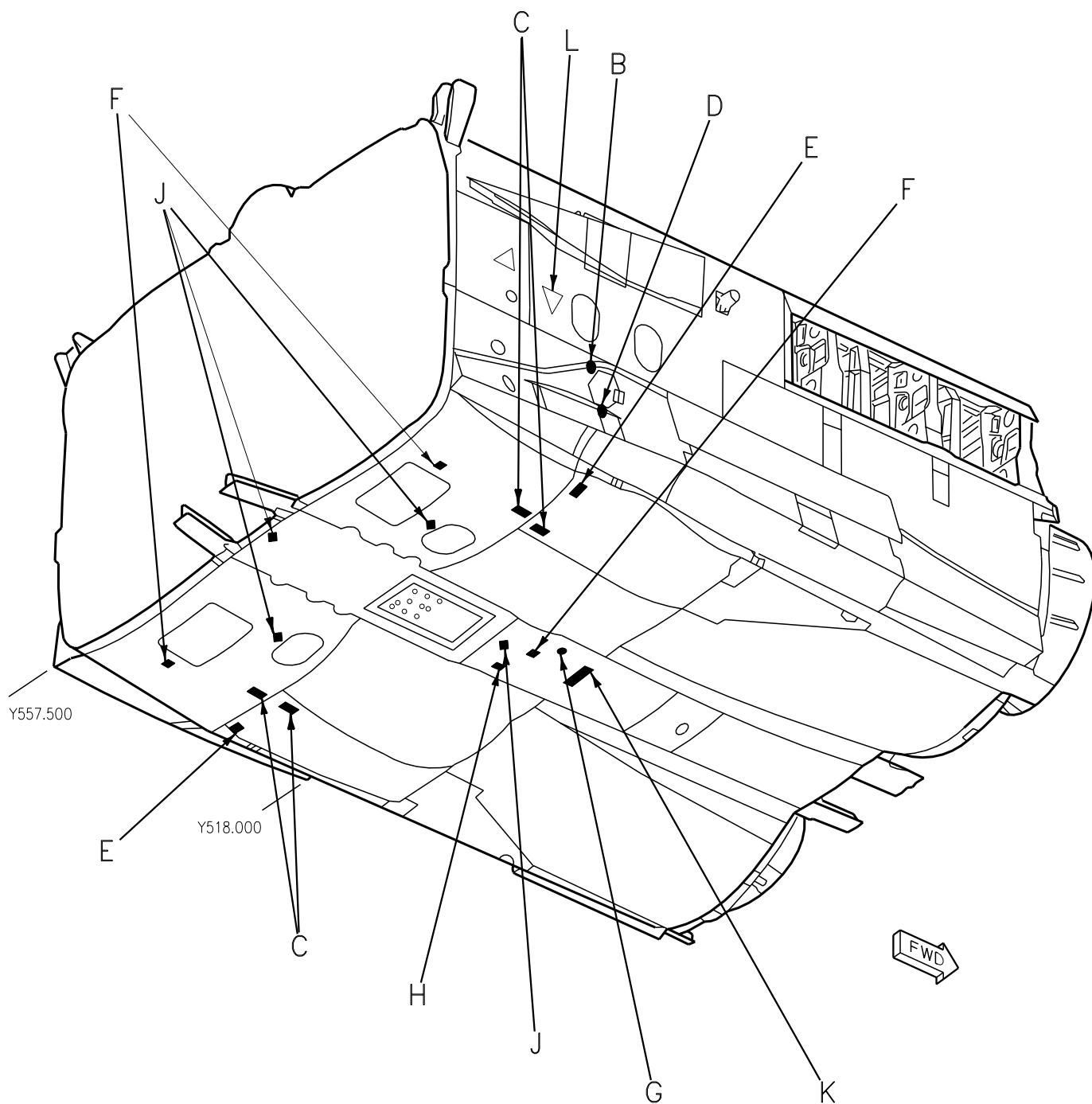


Figure 3. Instructional Markings (Sheet 2)



A

74A950334



MIL-H-83282

B

74A950341



H

74A950357

AIR TURBINE
STARTER EXHAUST

C

74A950366



G

74A950356



D

74A950349



0-156
(MIL-L-23699)

F

74A950339

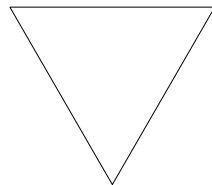
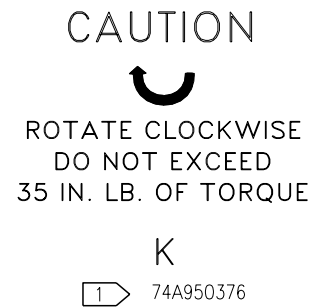
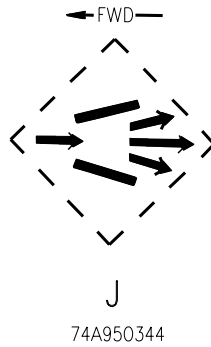


GROUND (EARTH)
LOCATED INSIDE

E

74A950337

Figure 3. Instructional Markings (Sheet 3)



3 2 74A950302-2009

LEGEND

- 1 161756 AND UP
- 2 164645 AND UP
- 3 SEE WPO36 00
FOR LOCATION OF
SUPERSEDED PARTS.

Figure 3. Instructional Markings (Sheet 4)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

AFT FUSELAGE CORROSION PRONE AREAS

Reference Material

| | |
|---|------------------|
| Structure Repair, Aft Fuselage | A1-F18AE-SRM-750 |
| Structure Group Index | WP001 01 |
| Structure Repair, Aft Fuselage | A1-F18AC-SRM-240 |
| Structure Group Index | WP001 01 |
| Aircraft Corrosion Control | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning | WP006 00 |
| Stripping | WP007 00 |
| Chemical Treatment | WP008 00 |
| Aft Fuselage Finish System and Markings | WP036 00 |

Alphabetical Index

| Subject | Page No. |
|--|----------|
| Introduction | 1 |
| Chemical Treatment | 2 |
| Classification of Critical Item/Areas | 2 |
| Cleaning | 2 |
| Corrosion Damage Evaluation and Limits | 2 |
| Corrosion Damage Repair | 2 |
| Corrosion Inspection | 2 |
| Corrosion Prone Areas | 1 |
| Corrosion Removal | 2 |
| Finish System and Markings | 2 |
| Stripping | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. The aft fuselage, extends from fuselage station Y557.500 aft. Structure and skins are aluminum, graphite epoxy, and titanium. Finish system is epoxy primer and polyurethane coatings.

3. CORROSION PRONE AREAS.

- a. Dissimilar metal contact.
- b. Water intrusion/entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.

e. Finish system/protection system damage.

4. **CORROSION INSPECTION.** (WP005 00).

a. Mold line and internal surfaces, see figures 1, 2 and 3.

(1) The sealant system for cuts, chafing, tears, or missing sections.

(2) The finish system for damage/deterioration.

(3) Doors, covers, skins and internal structure for pitting and surface corrosion.

(4) Door sills for cleanliness and corrosion.

(5) Hinge halves for wear or damage.

5. **CLEANING.** (WP006 00).

6. **STRIPPING.** (WP007 00).

7. **CORROSION REMOVAL.** (WP005 00).

8. **CHEMICAL TREATMENT.** (WP008 00).

9. **FINISH SYSTEM AND MARKINGS.** (WP036 00).

10. **CLASSIFICATION OF CRITICAL ITEM/AREAS.** (A1-F18AC-SRM-240, WP001 01 or A1-F18AE-SRM-750, WP001 01).

11. **CORROSION DAMAGE EVALUATION AND LIMITS.** (A1-F18AC-SRM-240, WP001 01 or A1-F18AE-SRM-750, WP001 01).

12. **CORROSION DAMAGE REPAIR.** (WP005 00 and A1-F18AC-SRM-240, WP001 01 or A1-F18AE-SRM-750, WP001 01).

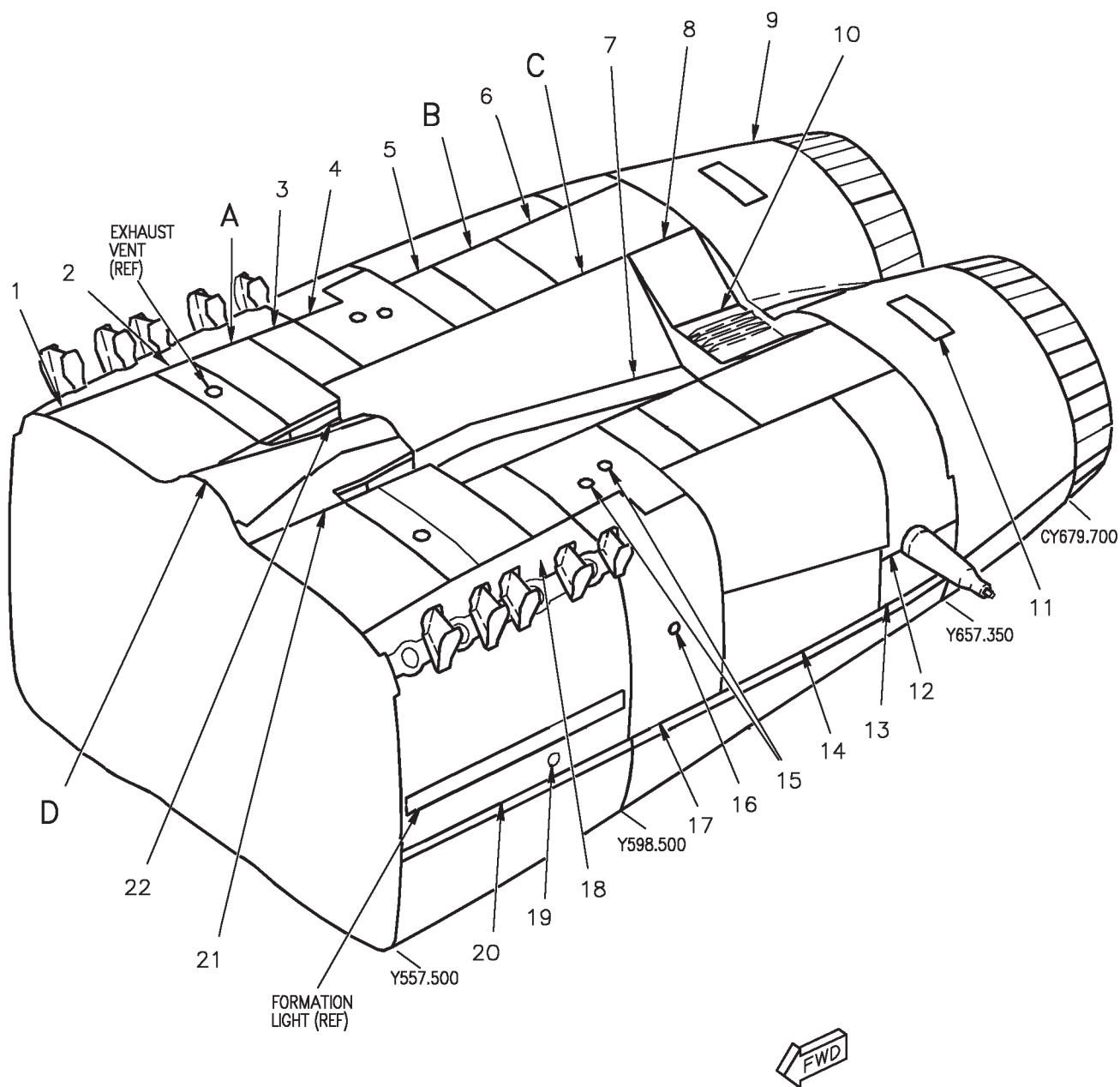


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 1)

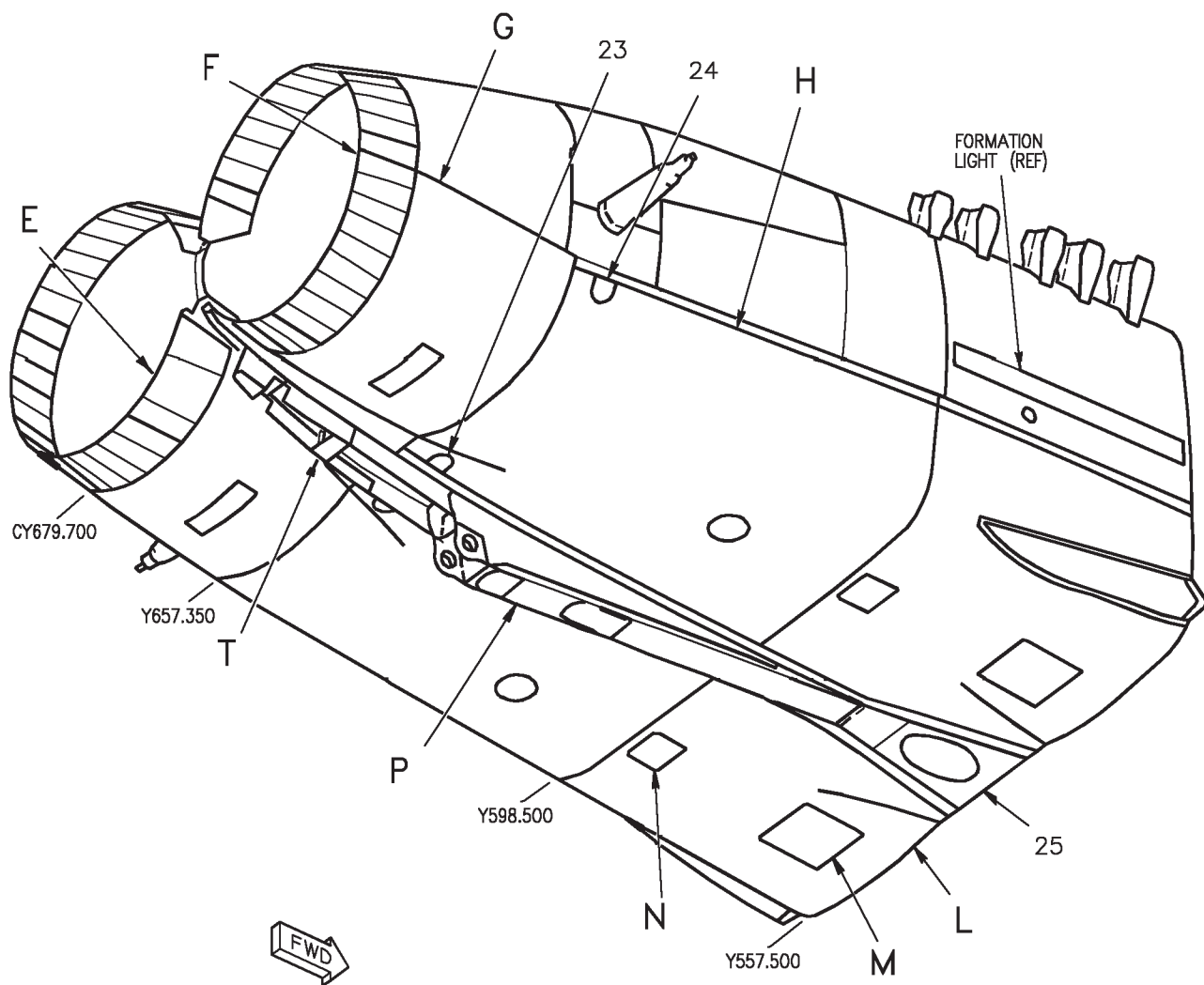


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 2)

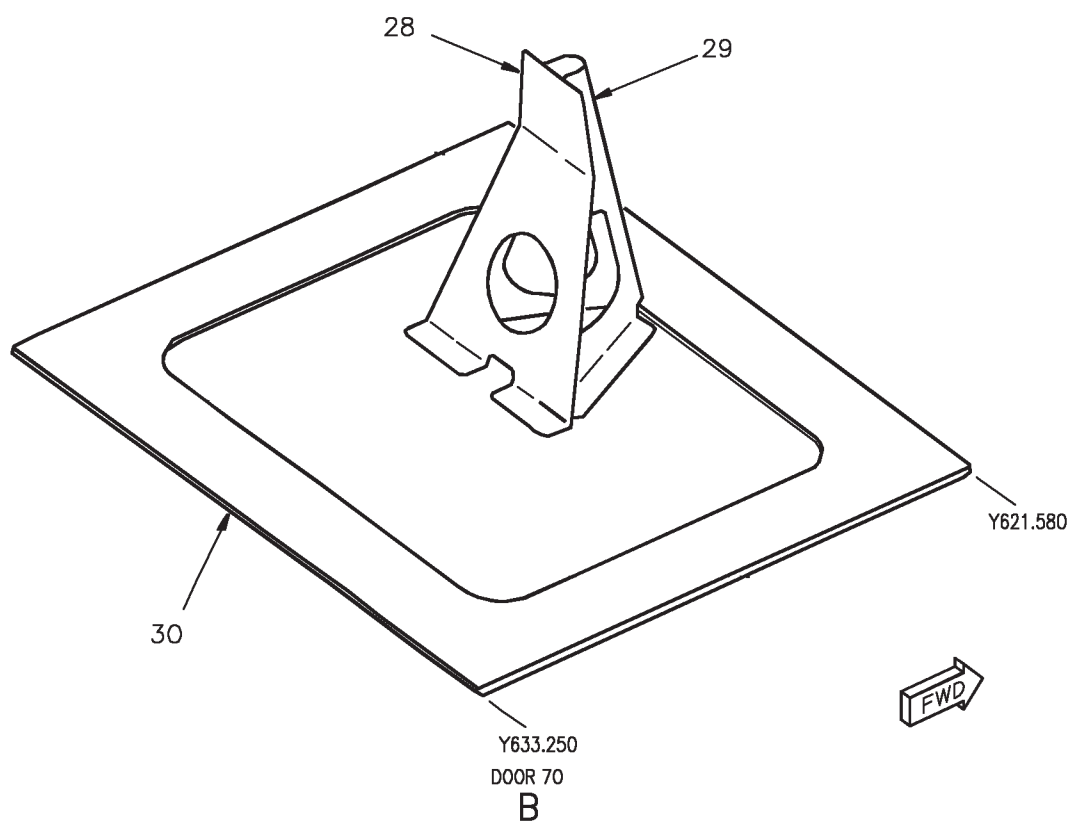
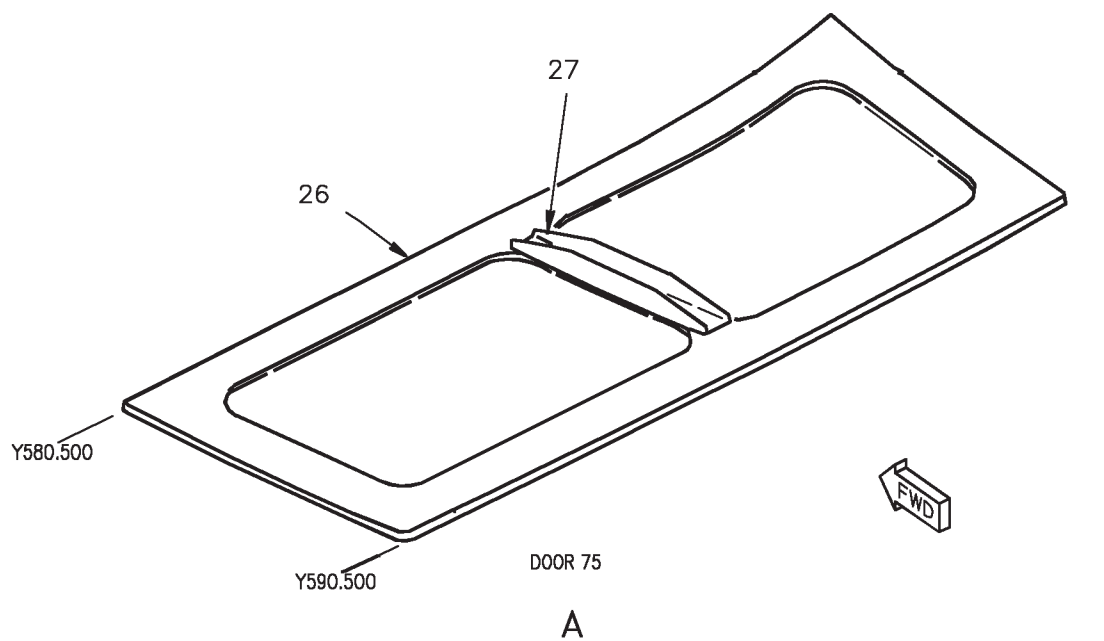


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 3)

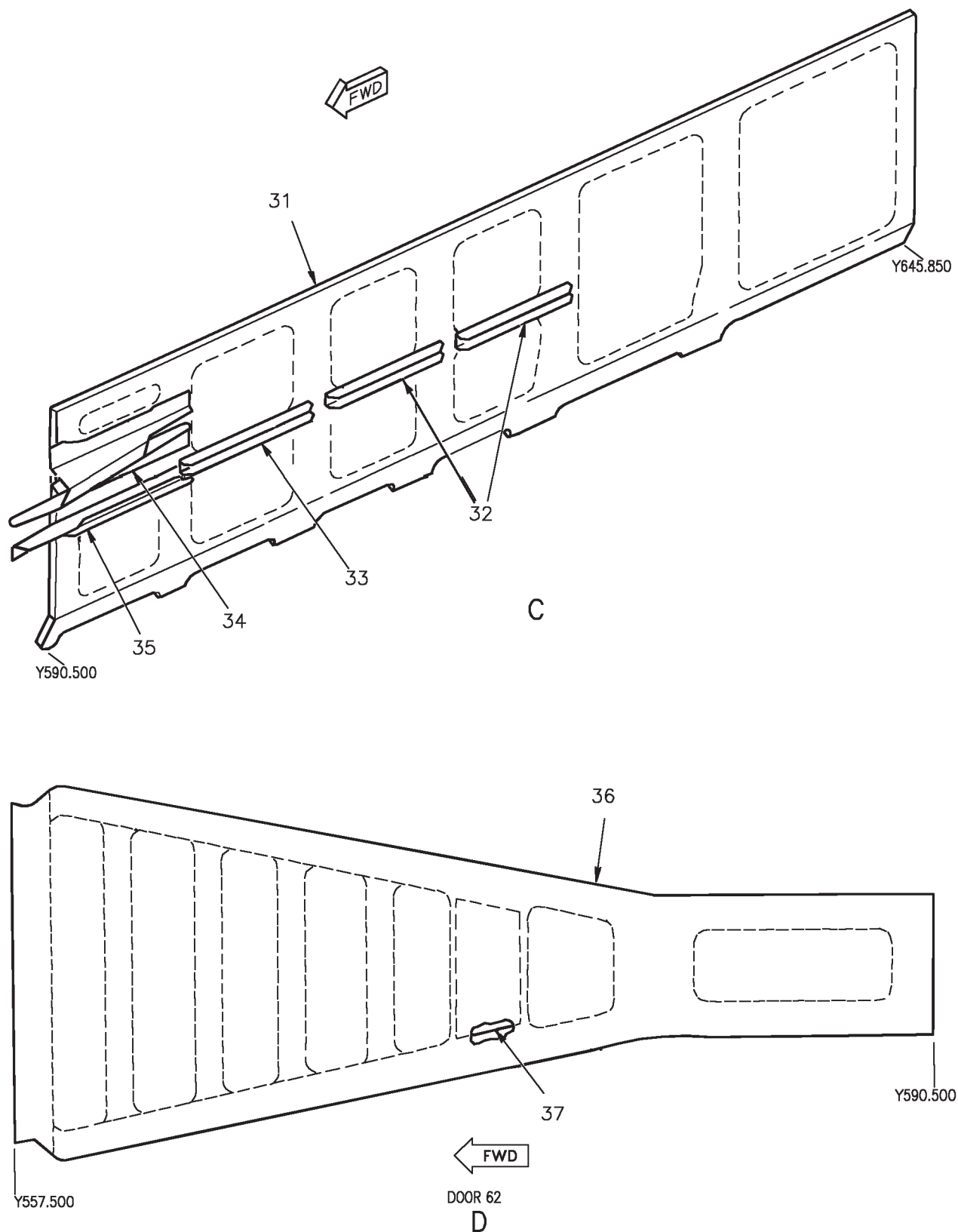


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 4)

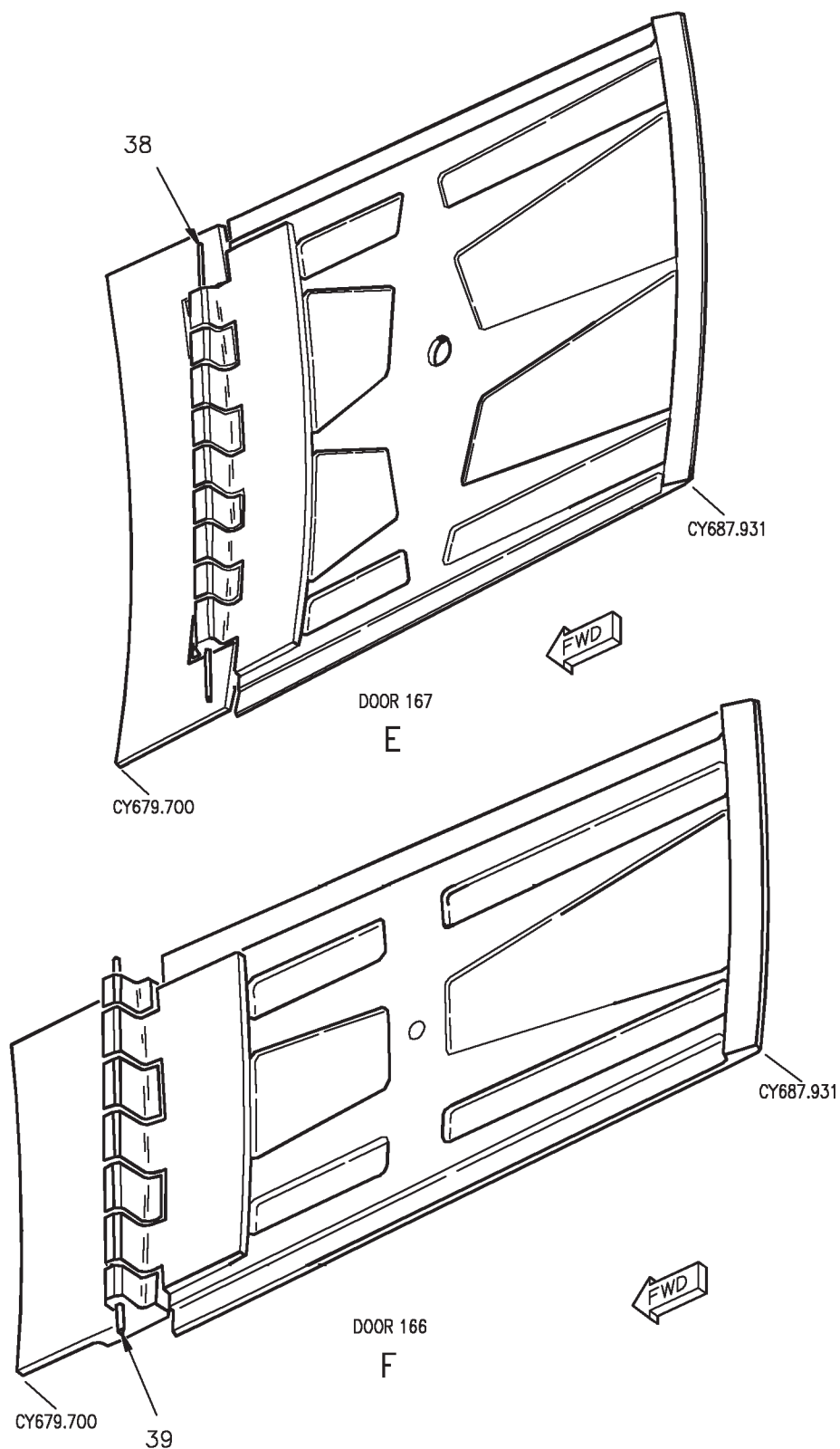


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 5)

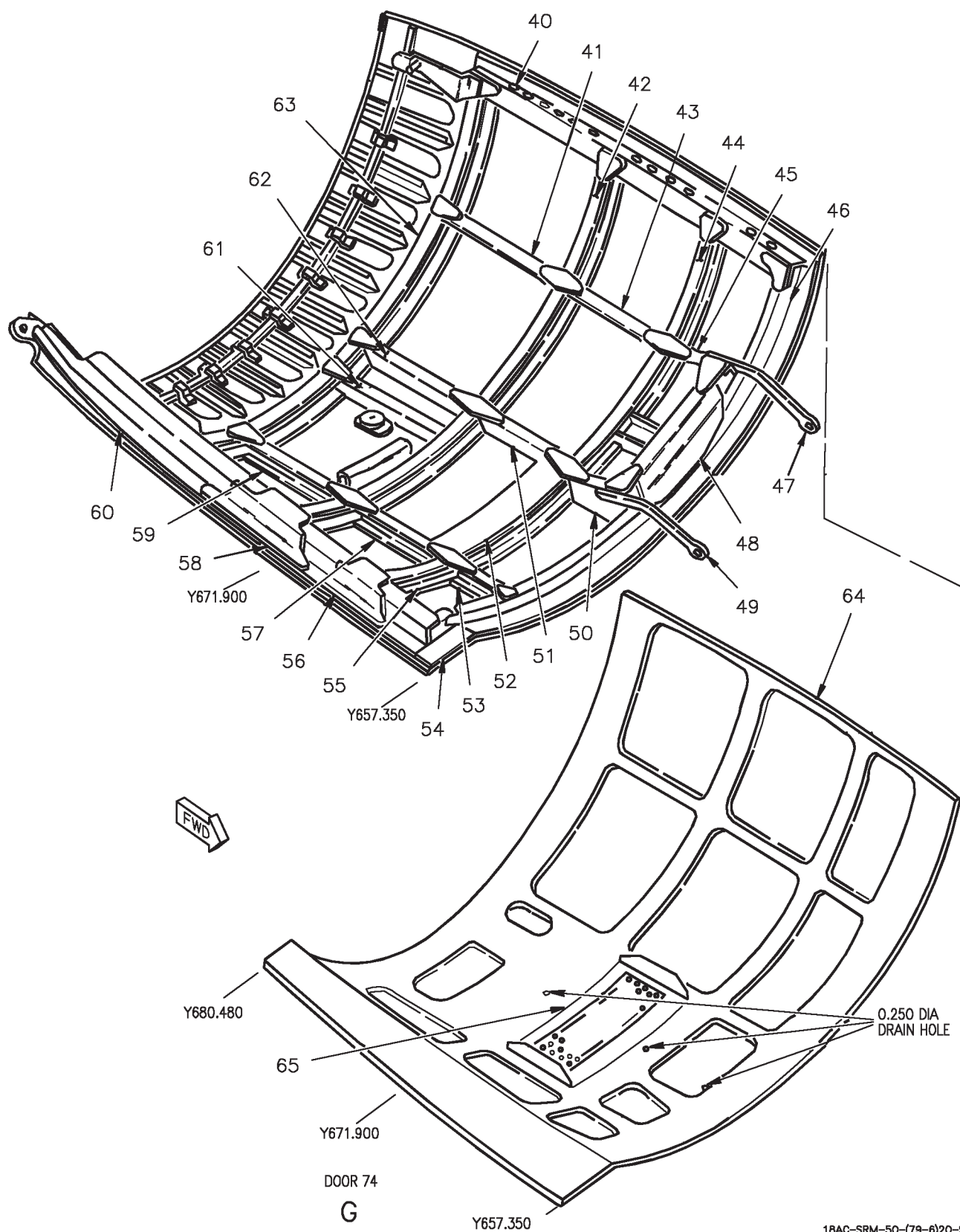


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 6)

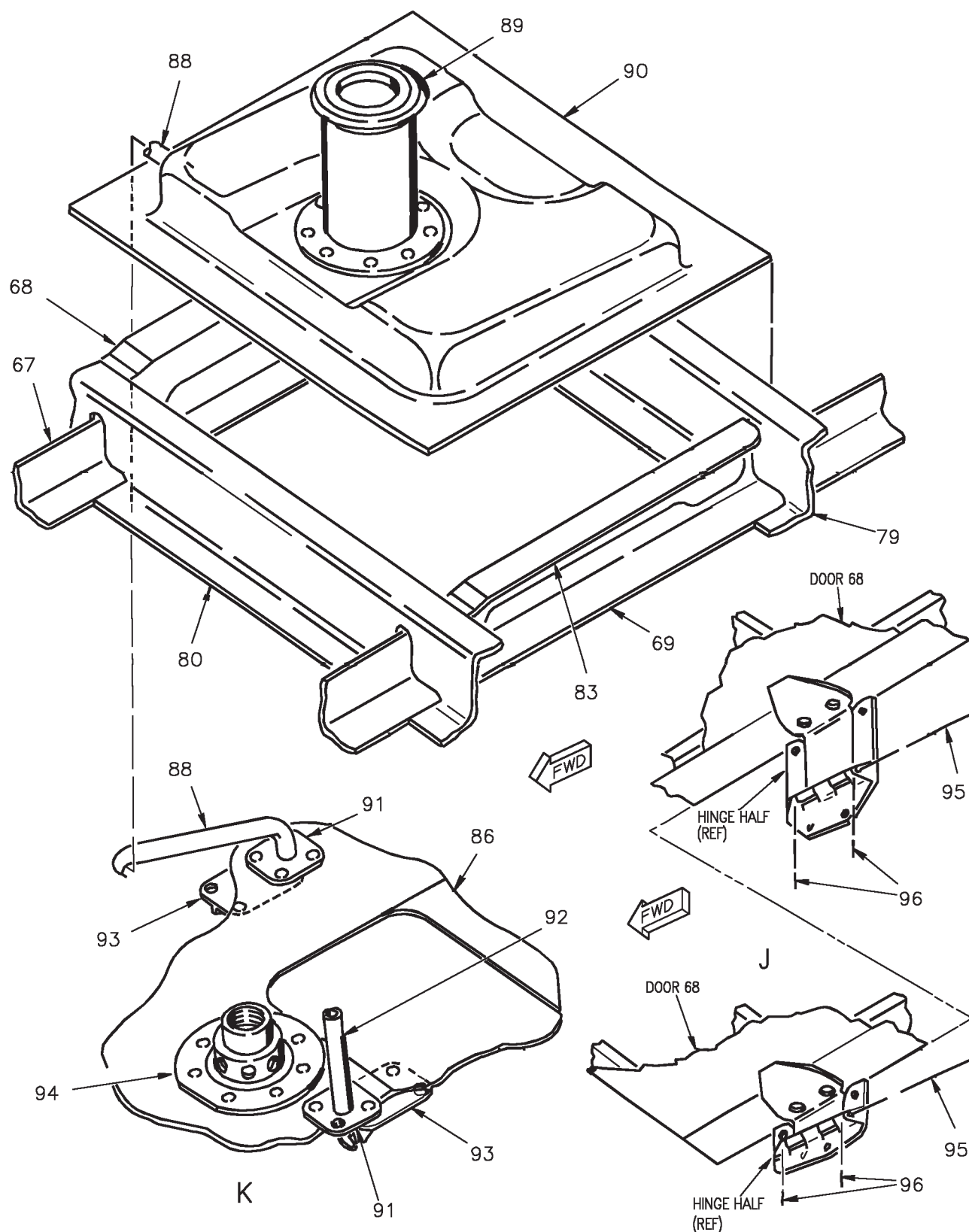


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 8)

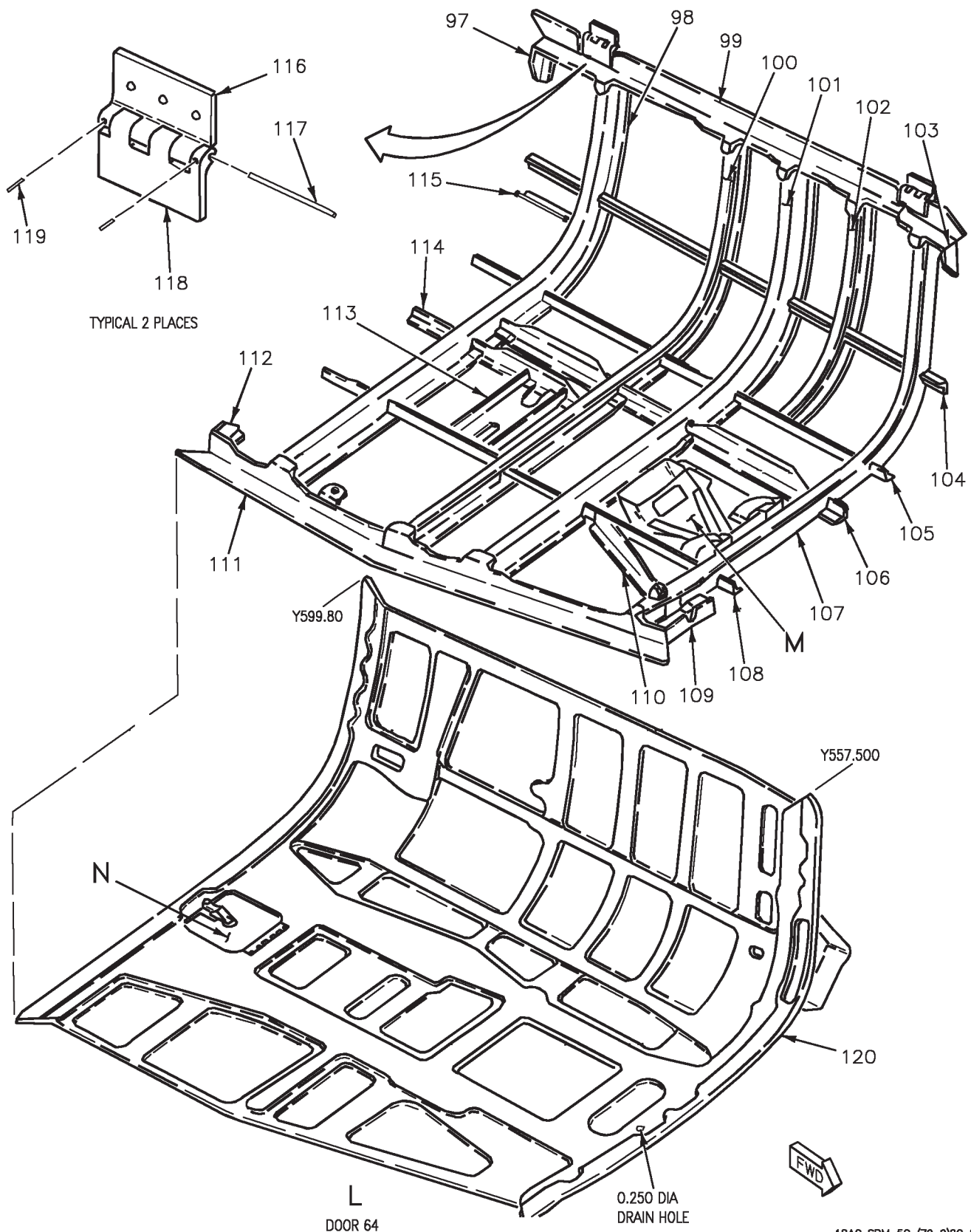


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 9)

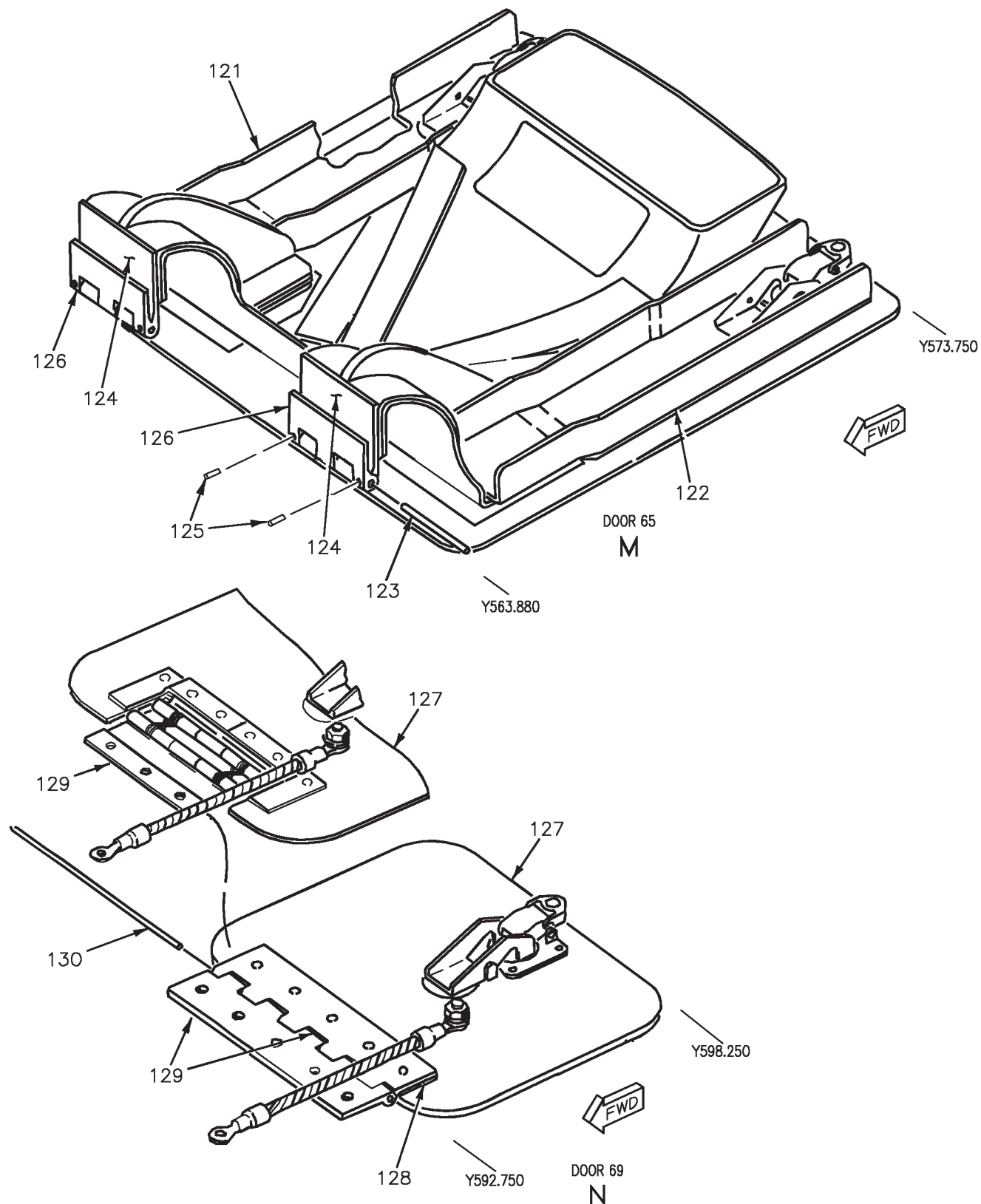


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 10)

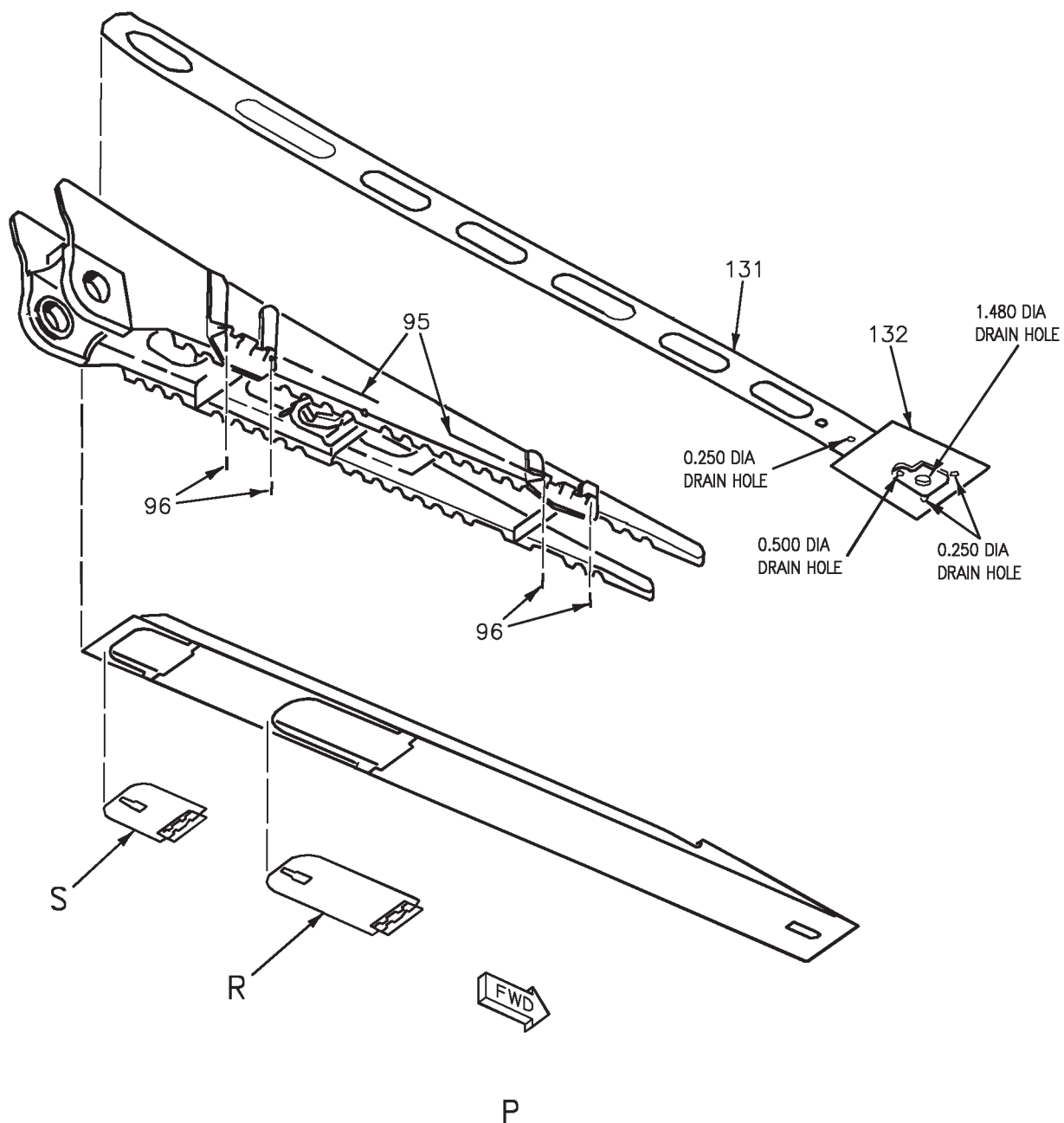


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 11)

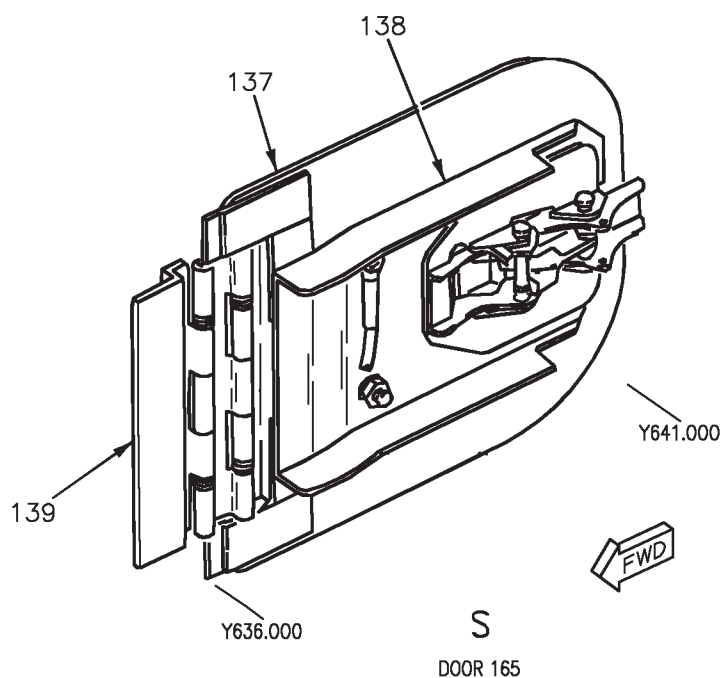
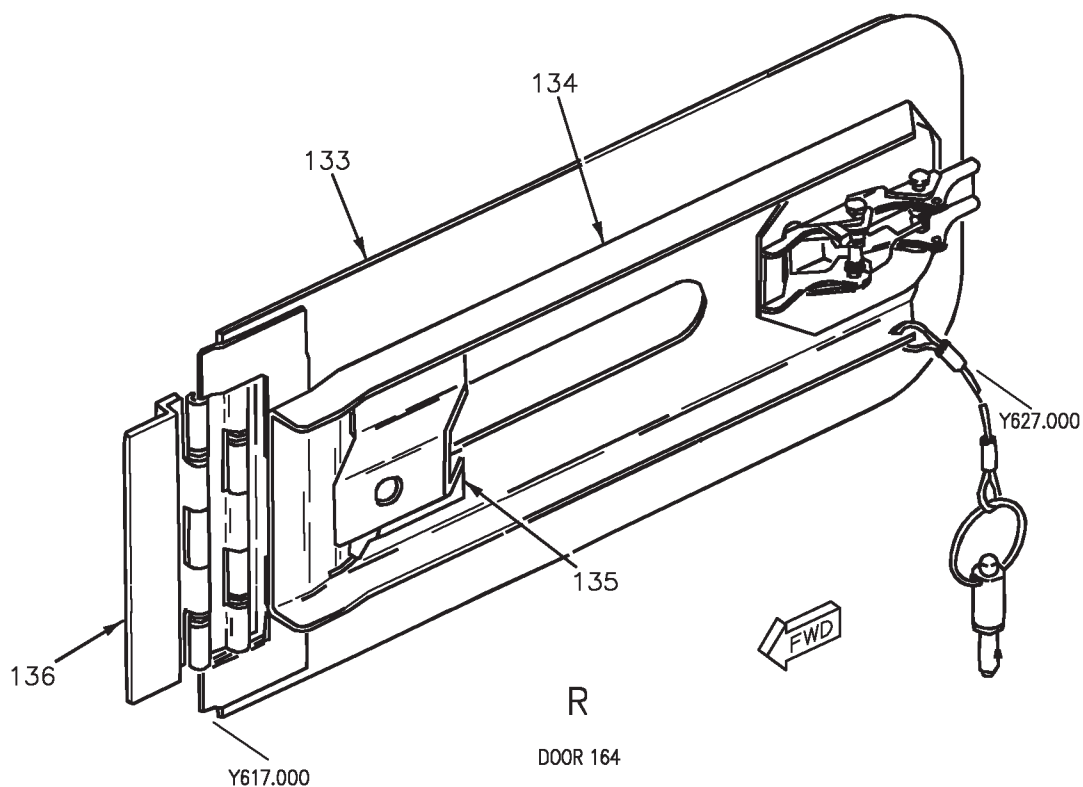


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 12)

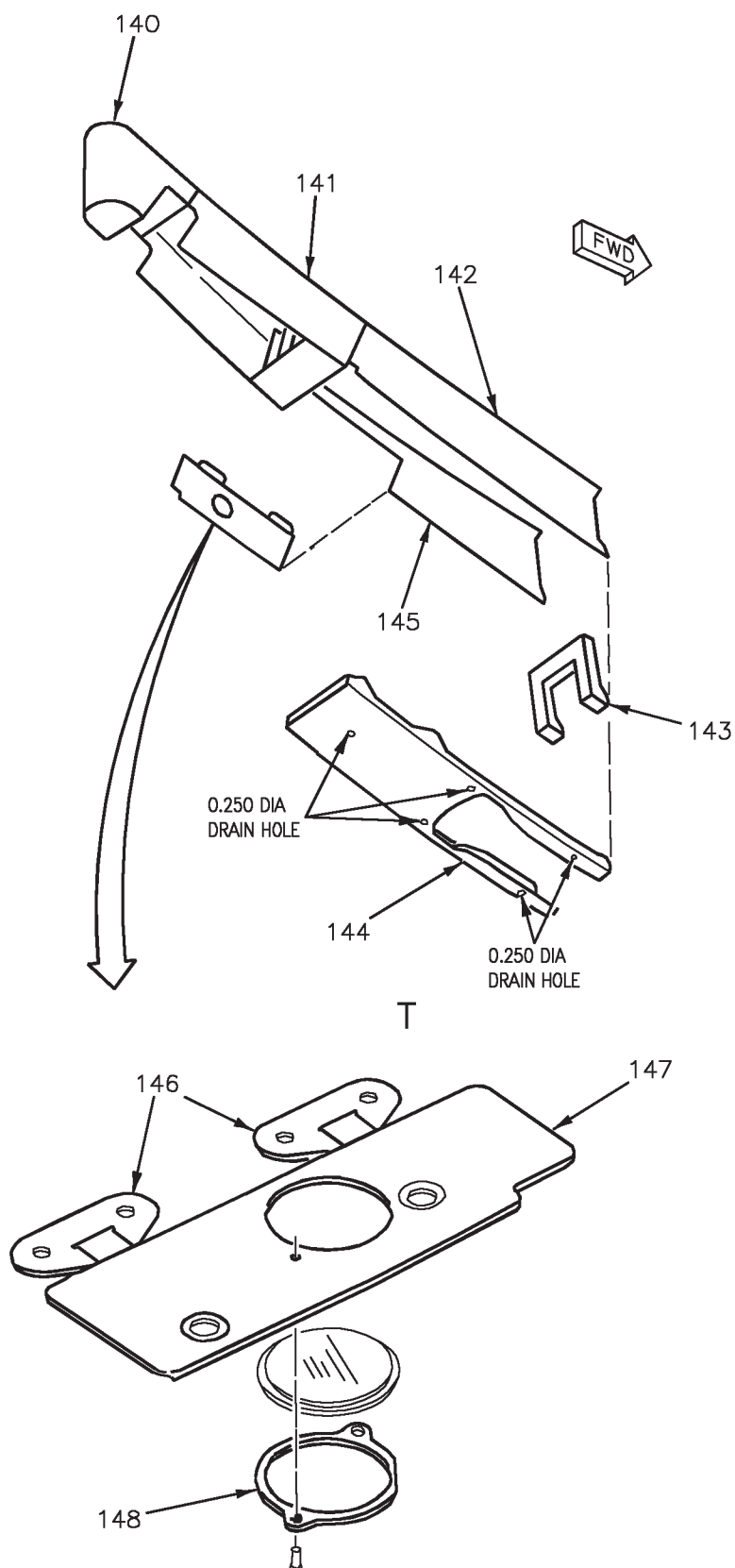


Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 13)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------------|------------------|
| 1 | Skin (Door 63) | 7075-T62 Al Aly, Sheet | Surface |
| 2 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 3 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 4 | Cover (Door 67) | 7075-T76 Alclad, Sheet | Surface |
| 5 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 6 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 7 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 8 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 9 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 10 | Cover (Door 103) | 7075-T73 Al Aly, Die Forging | Surface, Pitting |
| 11 | Panel | 302 Cres Perforated, Sheet | — |
| 12 | Cover (Door 72) | 7075-T76 Alclad, Sheet | Surface |
| 13 | Cover (Door 73) | 7075-T76 Alclad, Sheet | Surface |
| 14 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 15 | Cover | 7075-T6 Alclad, Sheet | Surface |
| 16 | Cover (Door 110) | 7075-T76 Alclad, Sheet | Surface |
| 17 | Skin | 7075-T6 Alclad, Sheet | Surface |
| 18 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 19 | Cover (Door 175) | 7075-T6 Alclad, Sheet | Surface |
| 20 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 21 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 22 | Closure Angle | 7075-T76 Alclad, Sheet | Surface |
| 23 | Skin (Door 134) | 7075-T6 Alclad, Sheet | Surface |
| 24 | Skin (Door 131) | 7075-T6 Alclad, Sheet | Surface |
| 25 | Cover (Door 66) | 321 Cres, Sheet | — |

Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 14)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 26 | Cover (Door 75) | 7075-T76 Alclad, Sheet | Surface |
| 27 | Stiffener | 7075-T62 Alclad, Sheet | Surface |
| 28 | Plate | 2024-T72 Alclad, Sheet | Surface |
| 29 | Retainer | 2024-T72 Alclad, Sheet | Surface |
| 30 | Cover (Door 70) | 7075-T76 Alclad, Sheet | Surface |
| 31 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 32 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 33 | Stiffener | 7075-T76511 Al Aly, Extrusion | Pitting |
| 34 | Intercostal | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 35 | Intercostal | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 36 | Cover (Door 62) | 7075-T76 Alclad, Sheet | Surface |
| 37 | Channel | 7075-T76 Alclad, Sheet | Surface |
| 38 | Pin | Cres, Wire | — |
| 39 | Pin | Cres, Wire | — |
| 40 | Former | 2024-T72 Al Aly, Sheet | Surface |
| 41 | Intercostal | 2024-T72 Al Aly, Sheet | Surface |
| 42 | Former | 2024-T72 Al Aly, Sheet | Surface |
| 43 | Intercostal | 2024-T72 Al Aly, Sheet | Surface |
| 44 | Former | 2024-T72 Al Aly, Sheet | Surface |
| 45 | Intercostal | 2024-T72 Al Aly, Sheet | Surface |
| 46 | Former | 2024-T72 Alclad, Sheet | Surface |
| 47 | Arm | 2024-T851 Al Aly, Plate | Pitting |
| 48 | Plate | 2024-T72 Al Aly, Sheet | Surface |
| 49 | Arm | 2024-T851 Al Aly, Plate | Pitting |
| 50 | Intercostal | 2024-T72 Al Aly, Sheet | Surface |

Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 15)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|------------------|
| 51 | Intercostal | 2024-T72 Al Aly, Sheet | Surface |
| 52 | Ramp | 2024-T72 Alclad, Sheet | Surface |
| 53 | Intercostal | 2024-T72 Al Aly, Sheet | Surface |
| 54 | Filler | 2024-T81 Al Aly, Sheet | Surface |
| 55 | Former | 2024-T72 Al Aly, Sheet | Surface |
| 56 | Doubler | 2024-T72 Al Aly, Sheet | Surface |
| 57 | Intercostal | 2024-T72 Al Aly, Sheet | Surface |
| 58 | Doubler | 2024-T72 Al Aly, Sheet | Surface |
| 59 | Intercostal | 2024-T72 Al Aly, Sheet | Surface |
| 60 | Former | 2024-T72 Al Aly, Sheet | Surface |
| 61 | Channel | 2024-T72 Al Aly, Sheet | Surface |
| 62 | Intercostal | 2024-T72 Al Aly, Sheet | Surface |
| 63 | Former | 2024-T62 Al Aly, Extrusion | Pitting |
| 64 | Skin | 2024-T72 Alclad, Sheet | Surface |
| 65 | Cover | 302 Cres Annealed, Sheet | — |
| 66 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 67 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 68 | Intercostal | 7075-T62 Alclad, Sheet | Surface |
| 69 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 70 | Stringer | 7075-T76 Alclad, Sheet | Surface |
| 71 | Stringer | 7075-T76 Alclad, Sheet | Surface |
| 72 | Stringer | 7075-T76 Alclad, Sheet | Surface |
| 73 | Intercostal | 7075-T62 Al Aly, Sheet | Surface |
| 74 | Former | 7049-T7352 Al Aly, Forging | Surface, Pitting |
| 75 | Intercostal | 7075-T62 Al Aly, Sheet | Surface |

Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 16)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 76 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 77 | Former | 7075-T62 Alclad, Sheet | Surface |
| 78 | Former | 7075-T62 Alclad, Sheet | Surface |
| 79 | Former | 7075-T62 Alclad, Sheet | Surface |
| 80 | Former | 7075-T62 Alclad, Sheet | Surface |
| 81 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 82 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 83 | Intercostal | 7075-T62 Alclad, Sheet | Surface |
| 84 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 85 | Support | 7075-T62 Al Aly, Sheet | Surface |
| 86 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 87 | Deflector | 7075-T73511 Al Aly, Bar | Pitting |
| 88 | Tube | 6061-T6 Al Aly, Tubing | Surface |
| 89 | Bellows Assembly | 321 Cres | — |
| 90 | Cover | 6061-T62 Al Aly, Sheet | Surface |
| 91 | Support | 6061-T6 Al Aly, Sheet | Surface |
| 92 | Tube | 6061-T6 Al Aly, Tubing | Surface |
| 93 | Guard | 7075-T76511 Al Aly, Extrusion | Pitting |
| 94 | Adapter | 6061-T651 Al Aly, Bar | Pitting |
| 95 | Pin | Cres, Wire | — |
| 96 | Pin | Cres, Steel | — |
| 97 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 98 | Former | 7075-T62 Al Aly, Sheet | Surface |
| 99 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 100 | Former | 7075-T62 Al Aly, Sheet | Surface |

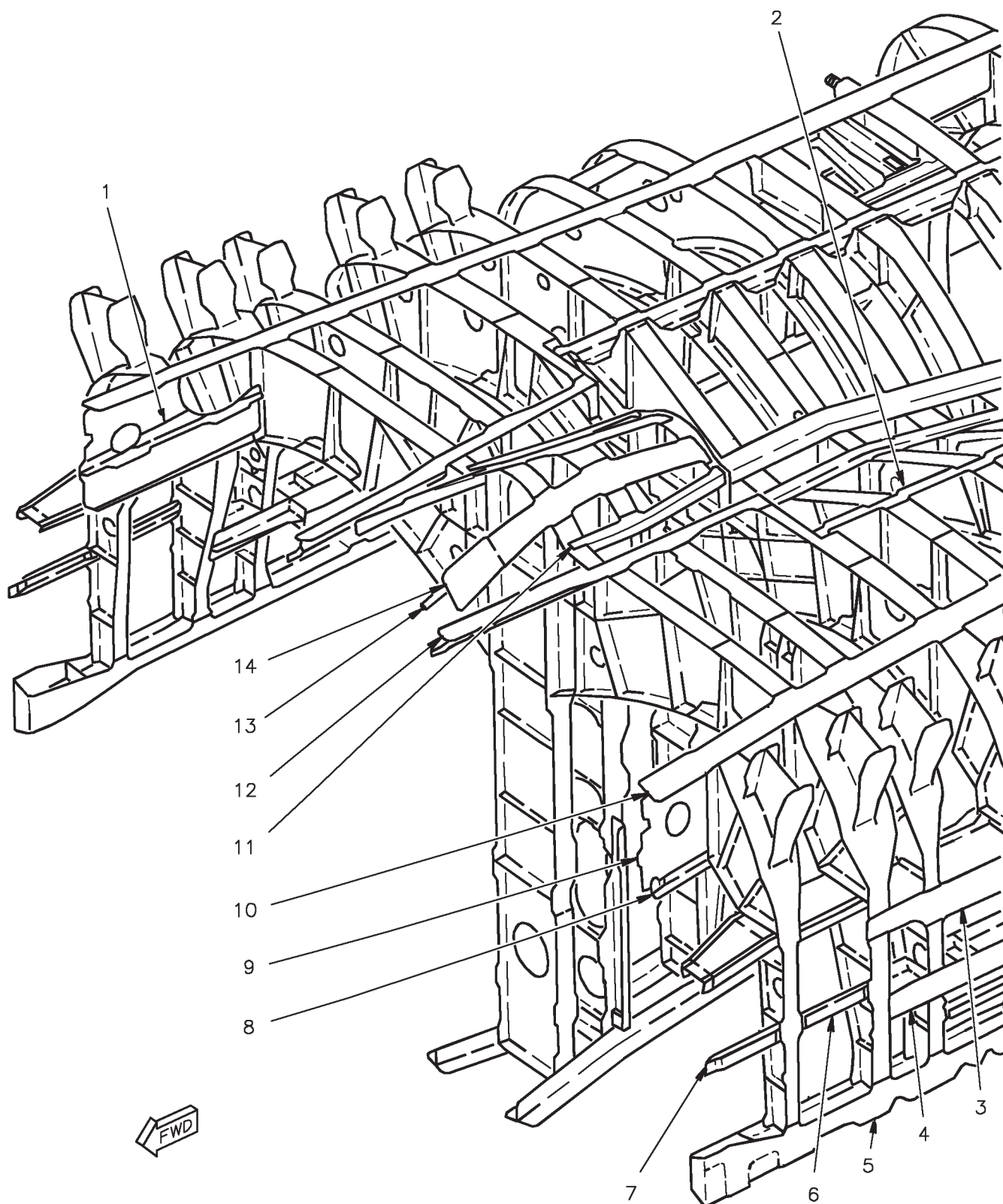
Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 17)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 101 | Former | 7075-T62 Al Aly, Sheet | Surface |
| 102 | Former | 7075-T62 Al Aly, Sheet | Surface |
| 103 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 104 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 105 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 106 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 107 | Former | 7075-T62 Al Aly, Sheet | Surface |
| 108 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 109 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 110 | Fitting | 7075-T73511 Al Aly, Bar | Pitting |
| 111 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 112 | Former | 7075-T76 Al Aly, Extrusion | Pitting |
| 113 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 114 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 115 | Support | 7075-T76511 Al Aly, Extrusion | Pitting |
| 116 | Hinge Half | 7075-T73511 Al Aly, Extrusion | Pitting |
| 117 | Hinge Pin | Cres, Wire | — |
| 118 | Hinge Half | 7075-T73511 Al Aly, Extrusion | Pitting |
| 119 | Pin | Steel | — |
| 120 | Skin | 7075-T76 Al Aly, Sheet | Surface |
| 121 | Channel | 7075-T62 Al Aly, Sheet | Surface |
| 122 | Channel | 7075-T62 Al Aly, Sheet | Surface |
| 123 | Hinge Pin | Cres, Wire | — |
| 124 | Hinge Half | 2024-T4 Al Aly, Extrusion | Pitting |
| 125 | Pin | Steel | — |

Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 18)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|----------------|
| 126 | Hinge Half | 2024-T4 Al Aly, Extrusion | Pitting |
| 127 | Door 69 | 7075-T6 Alclad, Sheet | Surface |
| 128 | Shim | 7075-T6 Al Aly, Sheet | Surface |
| 129 | Hinge | 302 Cres, Sheet | — |
| 130 | Hinge Pin | Cres, Wire | — |
| 131 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 132 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 133 | Door 164 | 7075-T6 Alclad, Sheet | Surface |
| 134 | Support | 7075-T62 Alclad, Sheet | Surface |
| 135 | Bracket | 7075-T62 Alclad, Sheet | Surface |
| 136 | Hinge | 302 Cres, Sheet | — |
| 137 | Door 165 | 7075-T6 Alclad, Sheet | Surface |
| 138 | Support | 7075-T62 Al Aly, Sheet | Surface |
| 139 | Hinge | 302 Cres, Sheet | — |
| 140 | Fairing | 6061-T62 Al Aly, Sheet | Surface |
| 141 | Support | A356-T61 Al Aly, Machining | Surface |
| 142 | Skin | 2024-T851 Al Aly, Plate | Pitting |
| 143 | Support | 2219-T851 Al Aly, Machining | Surface |
| 144 | Bracket | 7075-T351 Al Aly, Plate | Pitting |
| 145 | Skin | 2024-T851 Al Aly, Plate | Pitting |
| 146 | Hinge | 302 Cres, Sheet | — |
| 147 | Door 135 | 2024-T81 Alclad, Sheet | Surface |
| 148 | Retainer | 7075-T6 Alclad, Sheet | Surface |

Figure 1. Aft Fuselage Corrosion Prone Areas (Sheet 19)



18AC-SRM-50-(80-1)20-SCAN

Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 1)

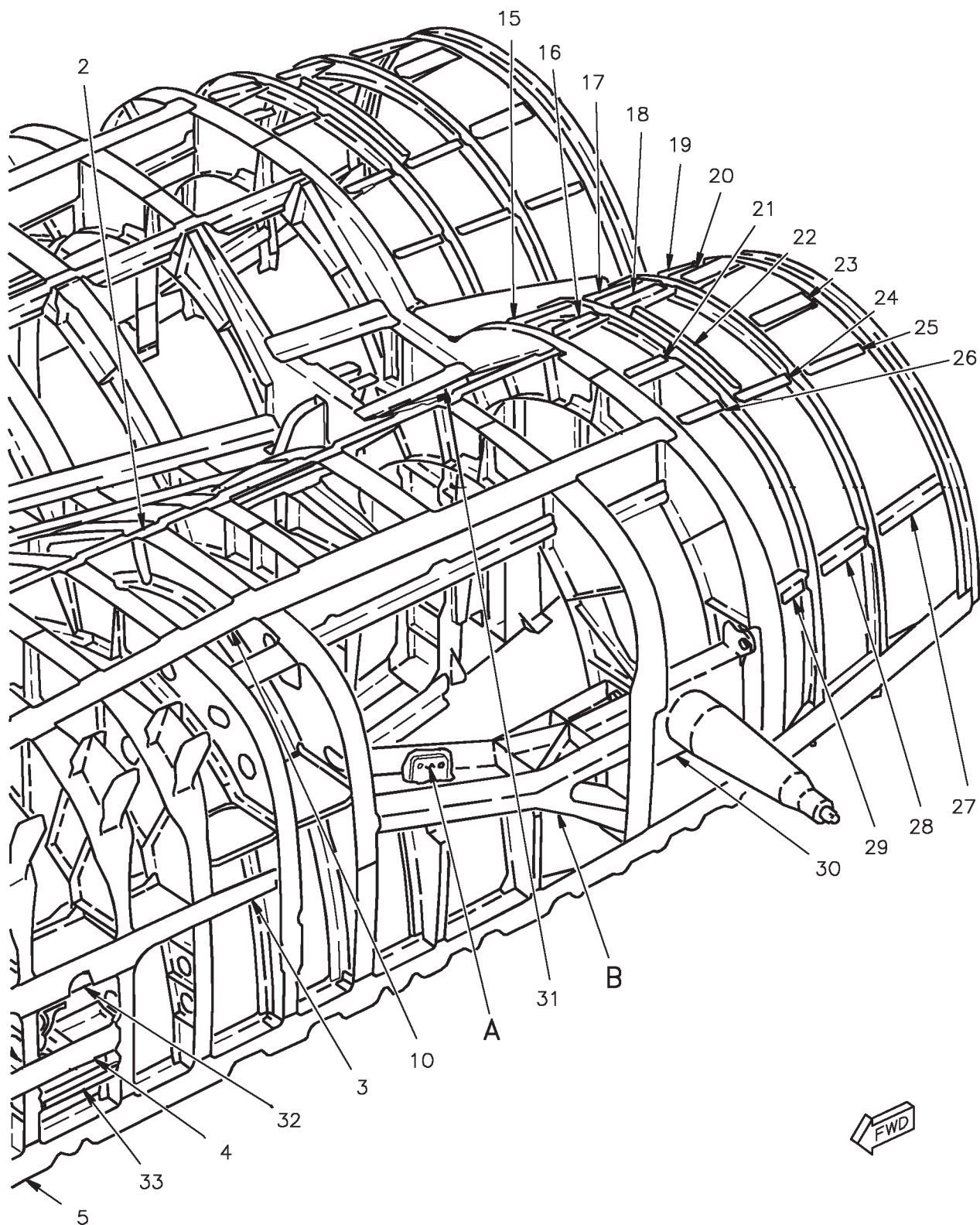


Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 2)

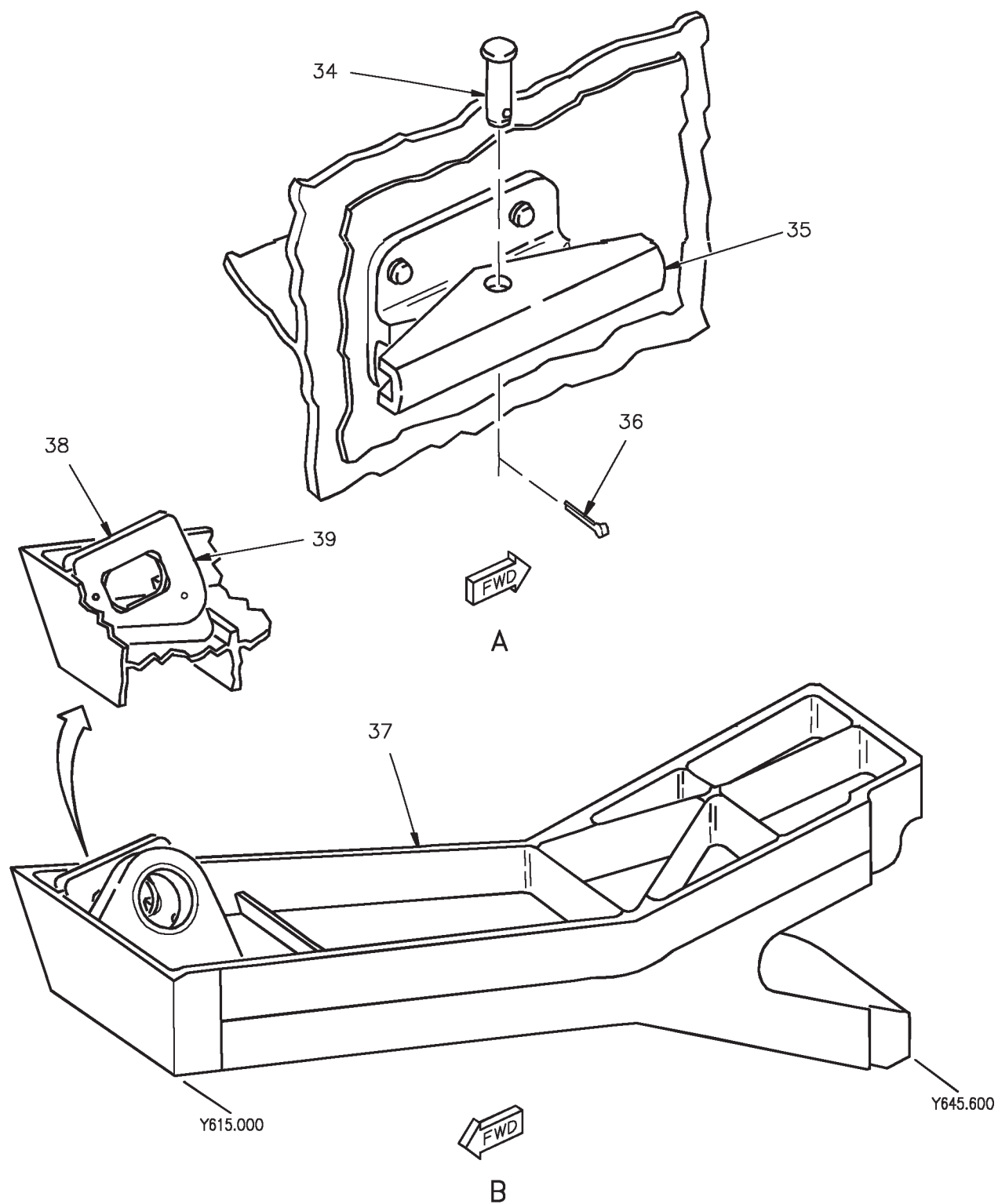


Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 3)

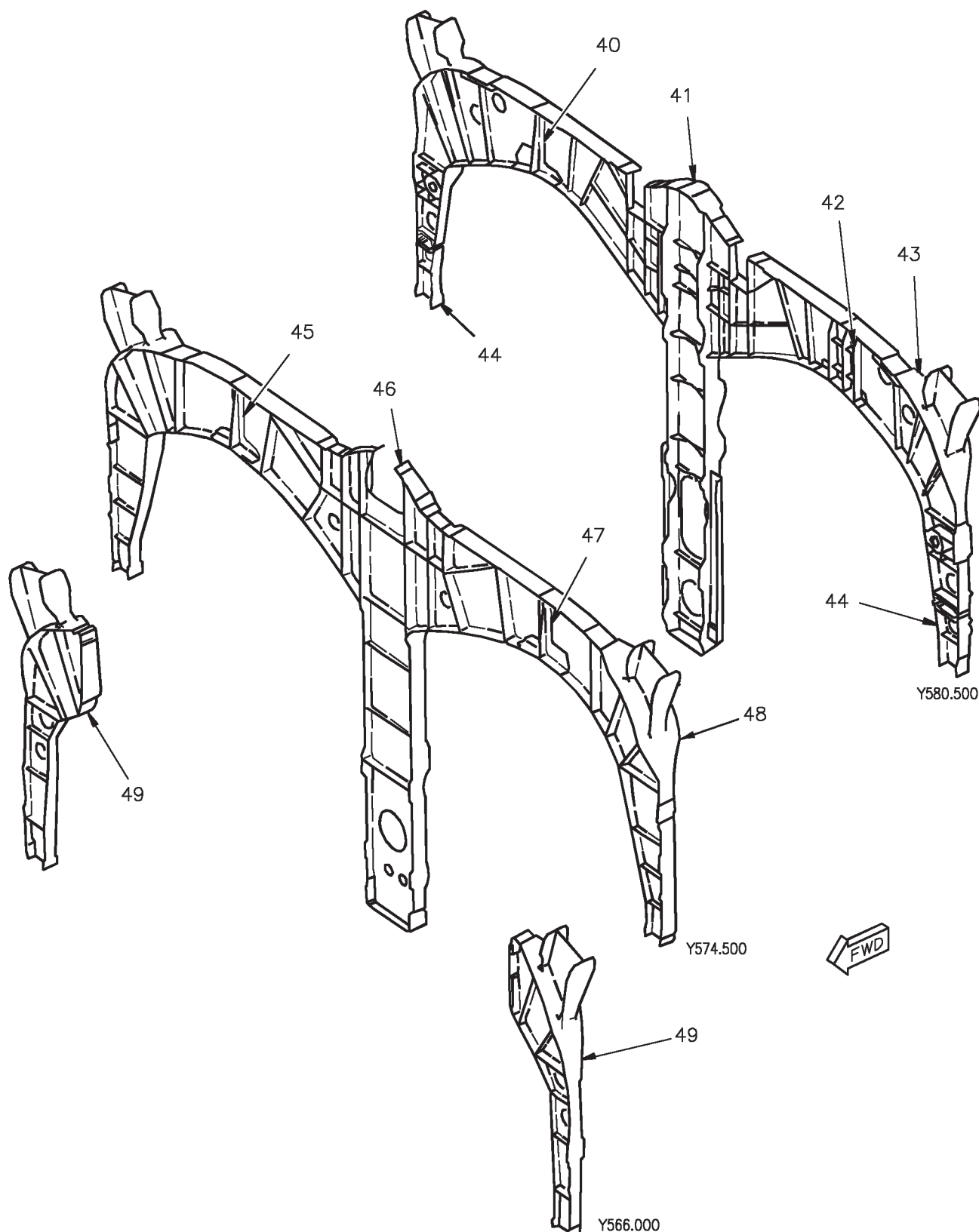


Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 4)

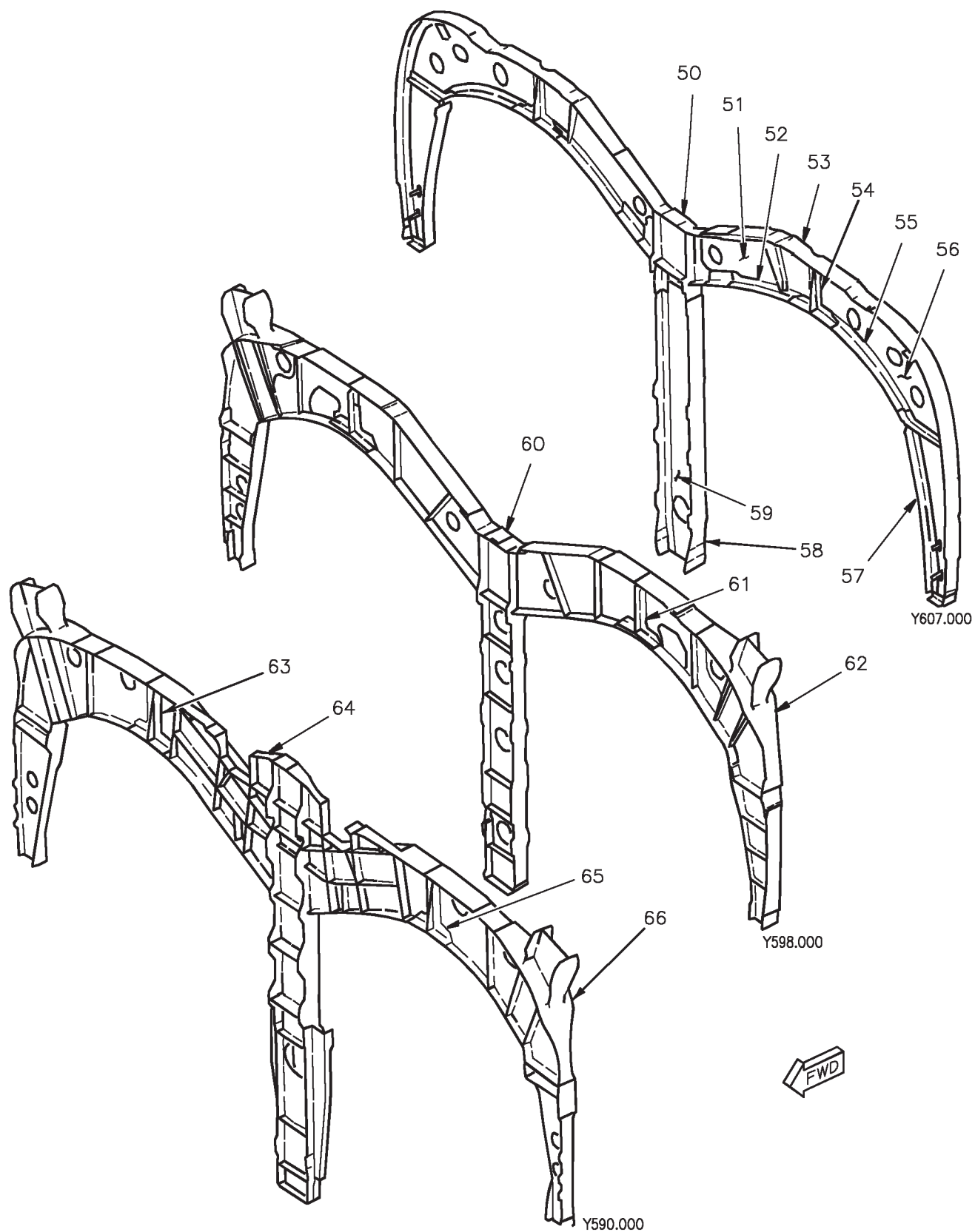


Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 5)

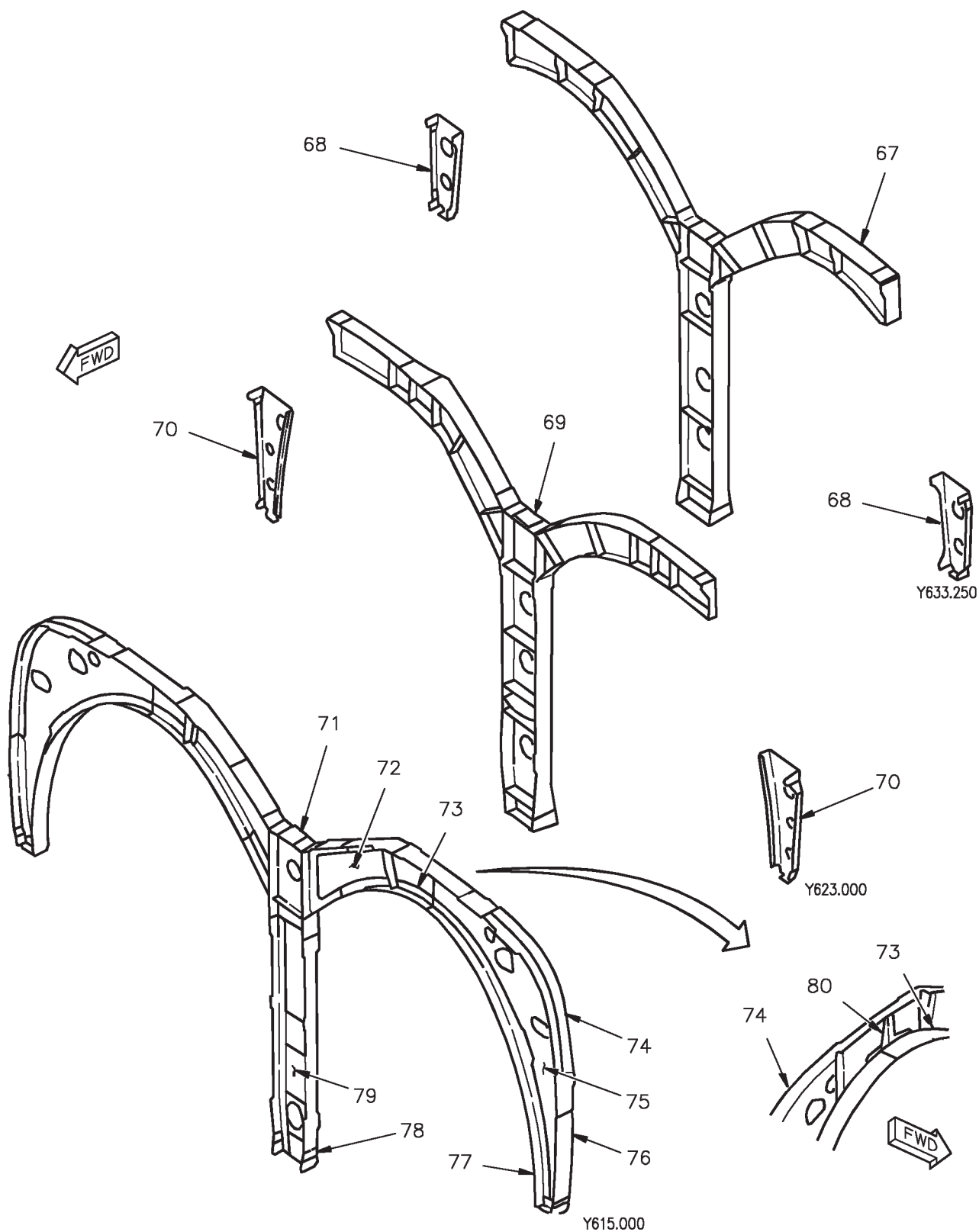


Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 6)

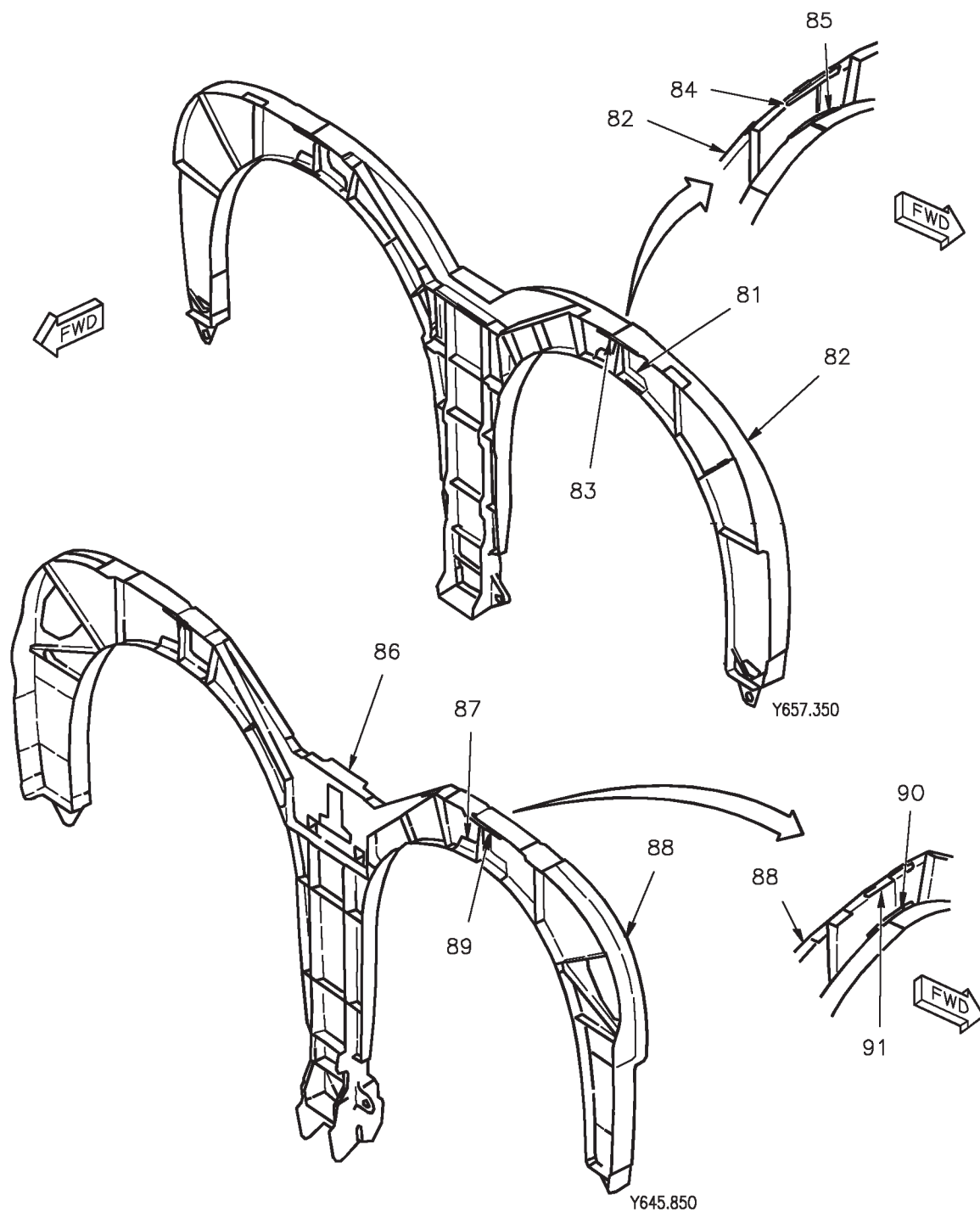
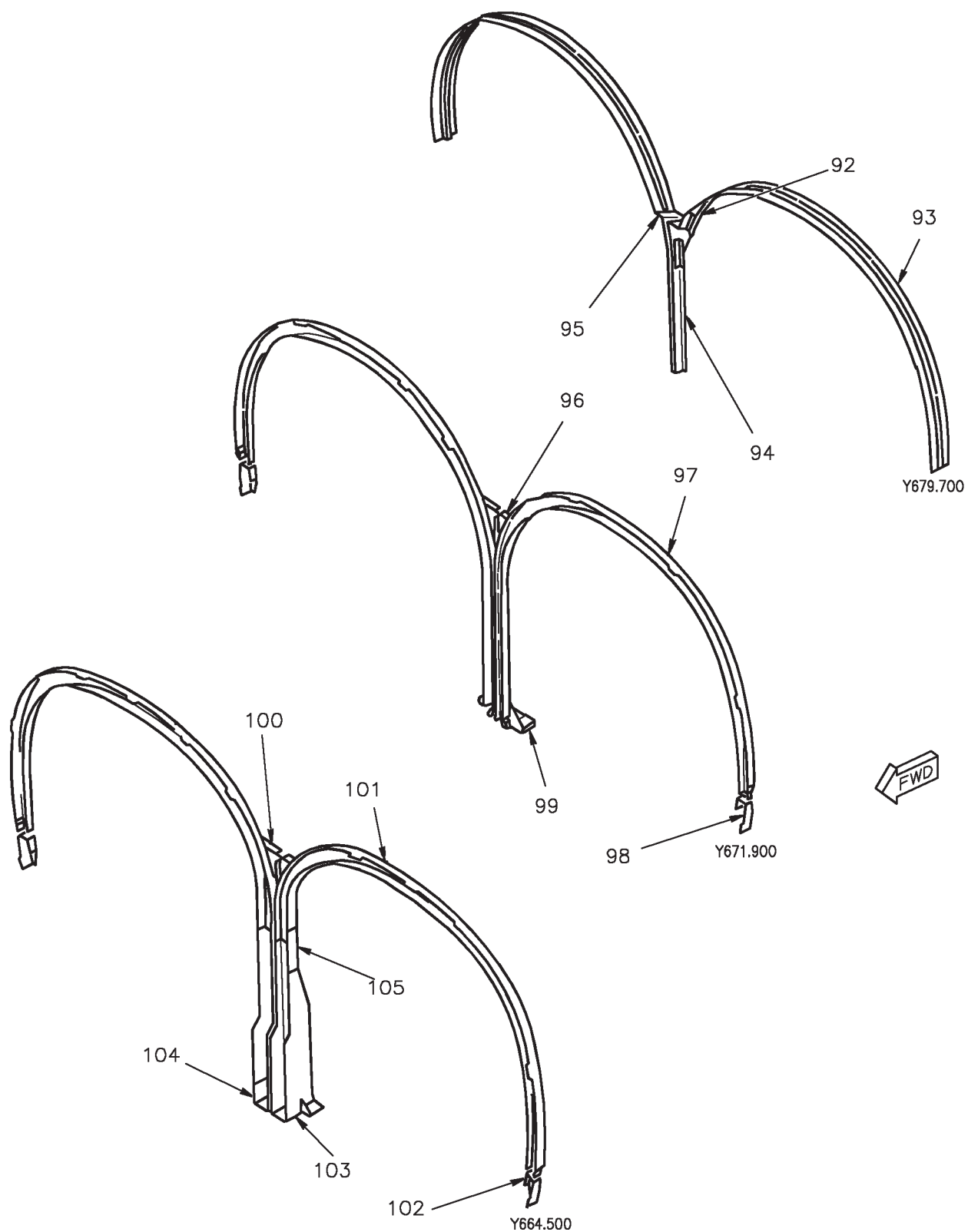


Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 7)



18AC-SRM-50-(80-8)20-SCAN

Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 8)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|----------------|
| 1 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 2 | Stringer | 7075-T62 Alclad, Sheet | Surface |
| 3 | Plate | 7075-T76 Alclad, Sheet | Surface |
| 4 | Stringer | 7075-T73511 Al Aly, Bar | Pitting |
| 5 | Longeron | 7149-T73 Al Aly, Extrusion | Pitting |
| 6 | Stringer | 7075-T76 Alclad, Sheet | Surface |
| 7 | Stringer | 7075-T76 Alclad, Sheet | Surface |
| 8 | Cap | 7075-T62 Al Aly, Sheet | Surface |
| 9 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 10 | Longeron | 7149-T73 Al Aly, Extrusion | Pitting |
| 11 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 12 | Longeron | 7075-T76 Al Aly, Extrusion | Pitting |
| 13 | Splice | 7075-T76 Al Aly, Sheet | Surface |
| 14 | Longeron | 7149-T73 Al Aly, Forging | Pitting |
| 15 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 16 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 17 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 18 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 19 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 20 | Stringer | 2024-T62 Al Aly, Extrusion | Pitting |
| 21 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 22 | Ramp | 2024-T72 Alclad, Sheet | Surface |
| 23 | Stringer | 2024-T62 Al Aly, Extrusion | Pitting |
| 24 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 25 | Stringer | 2024-T72 Al Aly, Sheet | Surface |

Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 9)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 26 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 27 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 28 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 29 | Stringer | 2024-T72 Al Aly, Sheet | Surface |
| 30 | Spindle | HP9-4-20 Steel, Forging | Surface, Pitting |
| 31 | Longeron | 7075-T76511 Al Aly, Extrusion | Pitting |
| 32 | Support Trunnion | 7049-T73 Al Aly, Forging | Surface, Pitting |
| 33 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 34 | Pin | Cres | — |
| 35 | Stop | 17-4 PH Cres | — |
| 36 | Cotter Pin | Cres | — |
| 37 | Support | 7050-T73652 Al Aly, Forging | Surface, Pitting |
| 38 | Plate | 301 Cres, Sheet | — |
| 39 | Plate | 301 Cres, Sheet | — |
| 40 | Plate | 7049-T73 Al Aly, Forging | Surface, Pitting |
| 41 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 42 | Plate | 7049-T73 Al Aly, Forging | Surface, Pitting |
| 43 | Former | 7050-T73652 Al Aly, Forging | Surface, Pitting |
| 44 | Former | 7050-T73652 Al Aly, Forging | Surface, Pitting |
| 45 | Plate | 7049-T73 Al Aly, Forging | Surface, Pitting |
| 46 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 47 | Plate | 7049-T73 Al Aly, Forging | Surface, Pitting |
| 48 | Former | 7052-T73652 Al Aly, Forging | Surface, Pitting |
| 49 | Former | 7050-T773652 Al Aly, Forging | Surface, Pitting |
| 50 | Plate | 7075-T7351 Al Aly, Plate | Pitting |

Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 10)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-----------------------------|------------------|
| 51 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 52 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 53 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 54 | Plate | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 55 | Cap | 7149-T73 Al Aly, Extrusion | Pitting |
| 56 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 57 | Cap | 7149-T73 Al Aly, Extrusion | Pitting |
| 58 | Tee | 7075-T6 Al Aly, Extrusion | Pitting |
| 59 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 60 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 61 | Plate | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 62 | Former | 7050-T73652 Al Aly, Forging | Surface, Pitting |
| 63 | Plate | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 64 | Former | 7050-T73651 Al Aly, Plate | Pitting |
| 65 | Plate | 7049-T73 Al Aly, Forging | Surface, Pitting |
| 66 | Former | 7050-T73652 Al Aly, Forging | Surface, Pitting |
| 67 | Former | 7050-T73651 Al Aly, Forging | Surface, Pitting |
| 68 | Former | 7075-T62 Al Aly, Sheet | Surface |
| 69 | Former | 7075-T73651 Al Aly, Plate | Pitting |
| 70 | Former | 7075-T62 Al Aly, Sheet | Surface |
| 71 | Fitting | 7075-T351 Al Aly, Plate | Pitting |
| 72 | Web | 7075-T6 Alclad, Sheet | Surface |
| 73 | Cap | 7075-T76 Al Aly, Extrusion | Pitting |
| 74 | Cap | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 75 | Web | 7075-T76 Alclad, Sheet | Surface |

Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 11)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|------------------|
| 76 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 77 | Tee | 7075-T76 Al Aly, Extrusion | Pitting |
| 78 | Tee | 7075-T76 Alclad, Extrusion | Pitting |
| 79 | Web | 7075-T6 Alclad, Sheet | Surface |
| 80 | Plate | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 81 | Plate | HP9-4-20 Steel, Forging | Surface, Pitting |
| 82 | Former | HP9-4-20 Steel, Forging | Surface, Pitting |
| 83 | Plate | HP9-4-20 Steel, Forging | Surface, Pitting |
| 84 | Plate | HP9-4-20 Steel, Forging | Surface, Pitting |
| 85 | Plate | HP9-4-20 Steel, Forging | Surface, Pitting |
| 86 | Former | HP9-4-20 Steel, Forging | Surface, Pitting |
| 87 | Plate | HP9-4-20 Steel, Forging | Surface, Pitting |
| 88 | Former | HP9-4-20 Steel, Forging | Surface, Pitting |
| 89 | Plate | HP9-4-20 Steel, Forging | Surface, Pitting |
| 90 | Plate | HP9-4-20 Steel, Forging | Surface, Pitting |
| 91 | Plate | HP9-4-20 Steel, Forging | Surface, Pitting |
| 92 | Bracket | 2219-T851 Al Aly, Plate | Pitting |
| 93 | Former | 2024-T62 Al Aly, Extrusion | Pitting |
| 94 | Stringer | 2024-T62 Al Aly, Extrusion | Pitting |
| 95 | Bracket | 2219-T851 Al Aly, Plate | Pitting |
| 96 | Bracket | 2024-T72 Al Aly, Sheet | Surface |
| 97 | Former | 2024-T72 Al Aly, Sheet | Surface |
| 98 | Fitting | 2219-T851 Al Aly, Plate | Pitting |
| 99 | Bracket | 2219-T851 Al Aly, Plate | Pitting |
| 100 | Bracket | 2024-T72 Alclad, Sheet | Surface |

Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 12)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------|----------------|
| 101 | Former | 2024-T72 Alclad, Sheet | Surface |
| 102 | Bracket | 2219-T851 Al Aly, Plate | Pitting |
| 103 | Support Segment | 2219-T851 Al Aly, Plate | Pitting |
| 104 | Support Segment | 2219-T851 Al Aly, Plate | Pitting |
| 105 | Bracket | 2024-T72 Alclad, Sheet | Surface |

Figure 2. Aft Fuselage Corrosion Prone Areas (Sheet 13)

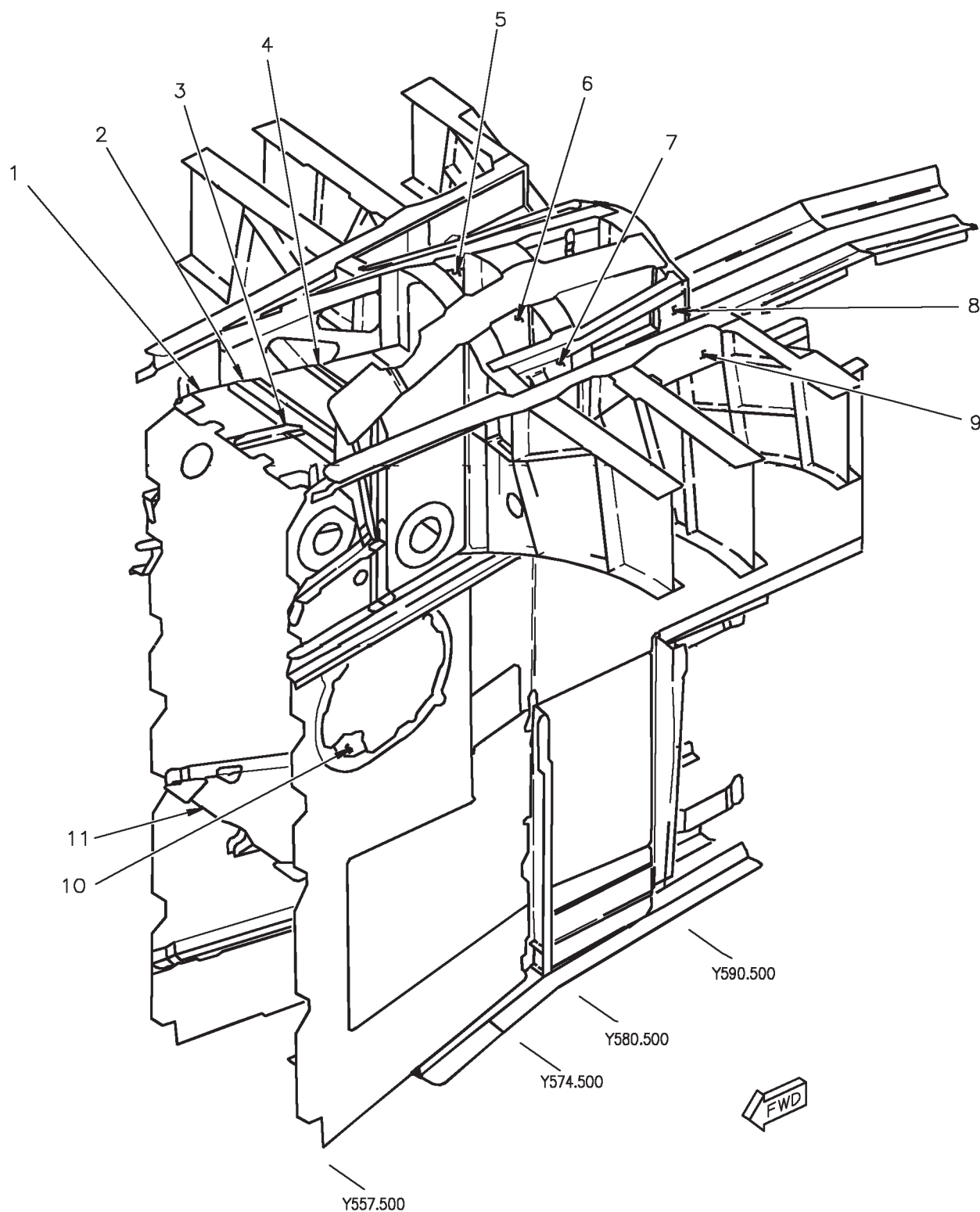


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 1)

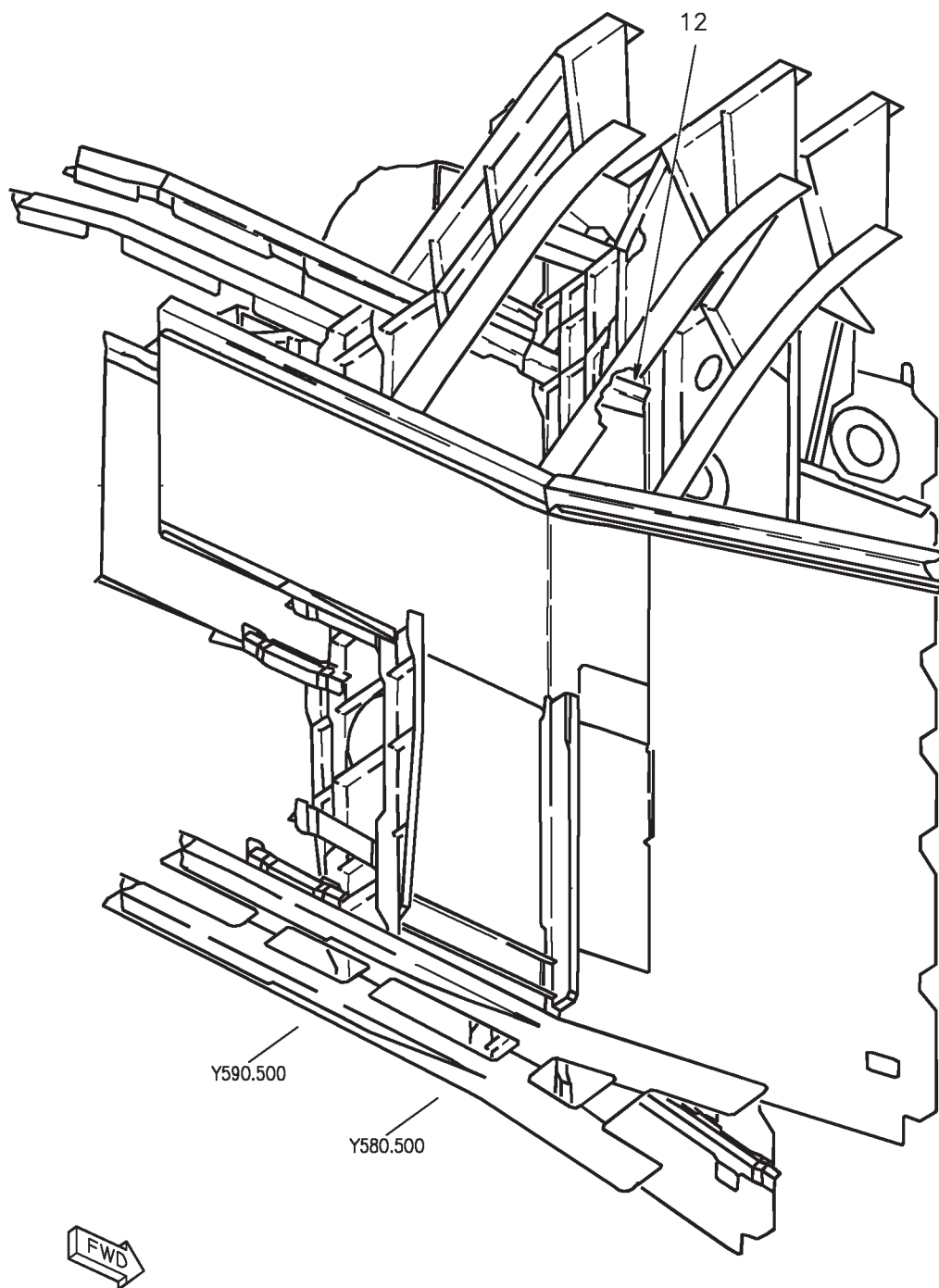


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 2)

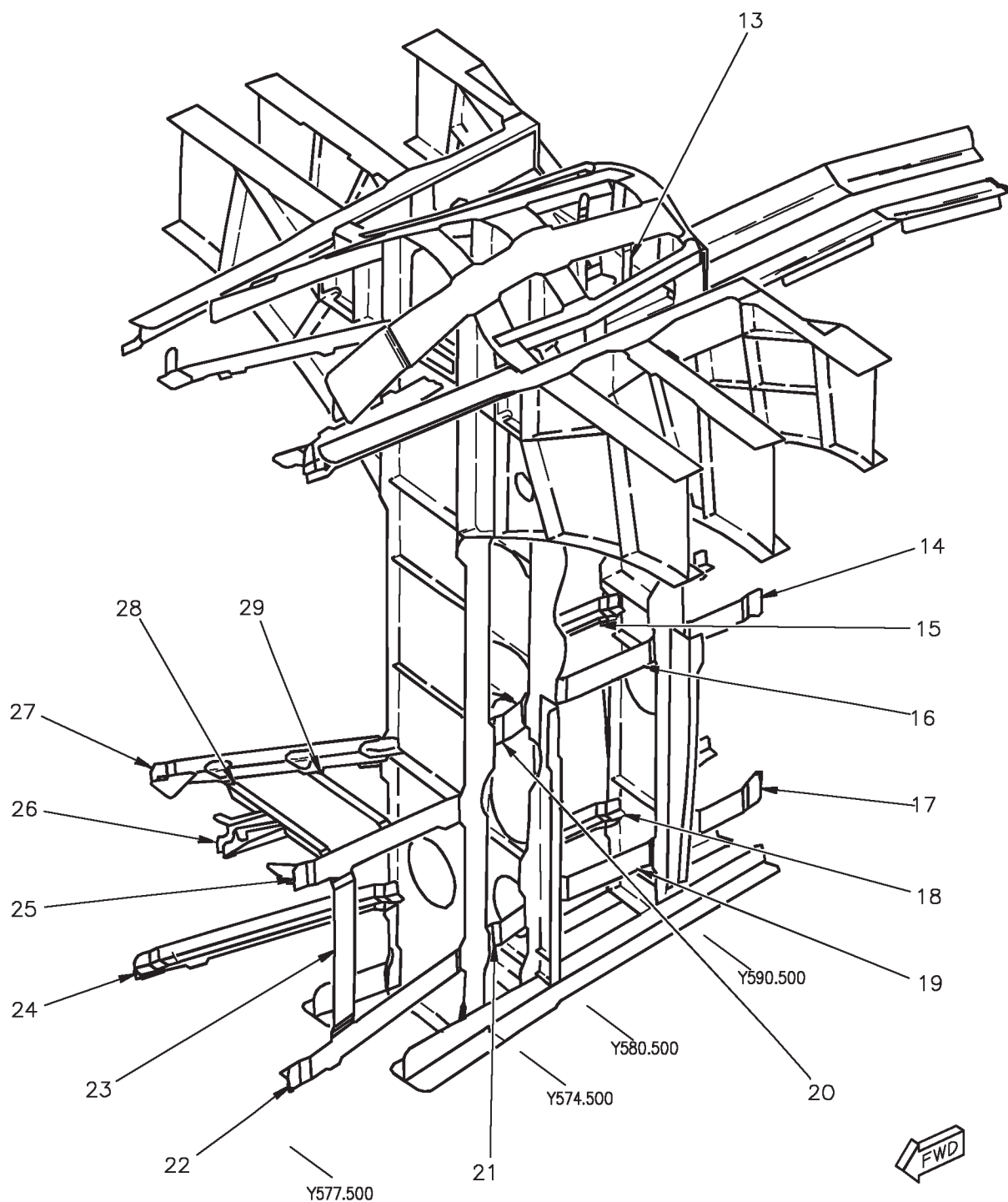


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 3)

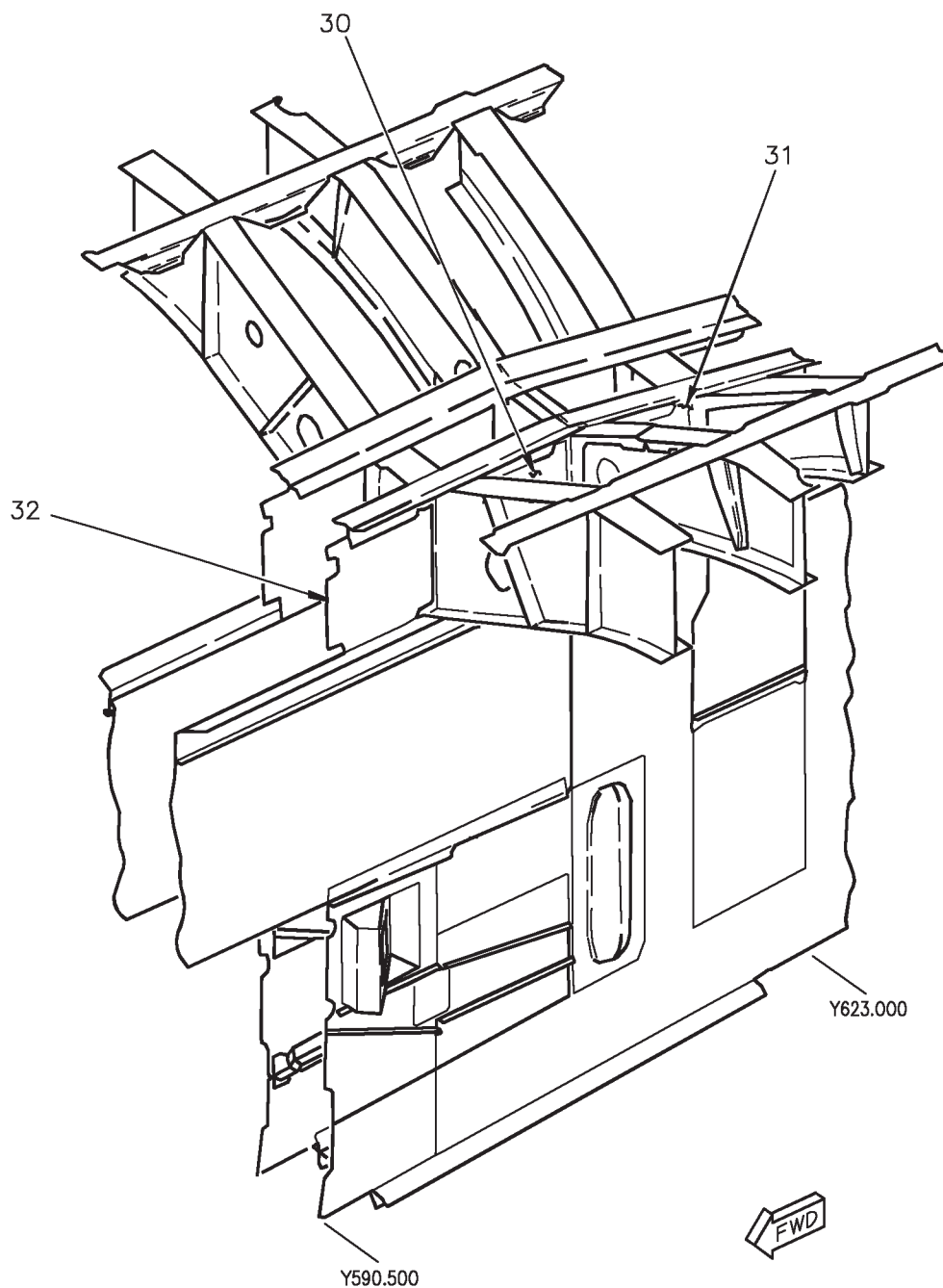


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 4)

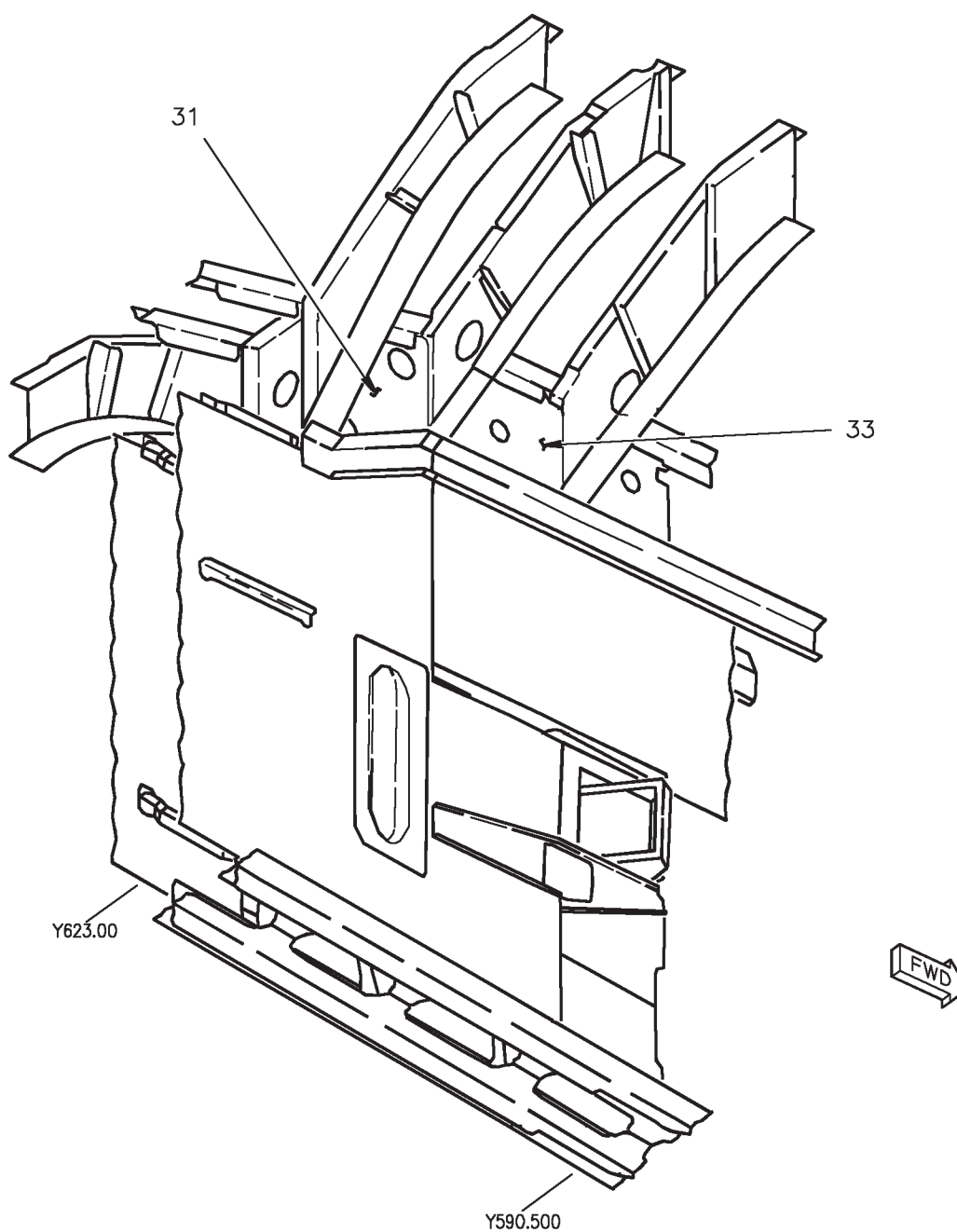


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 5)

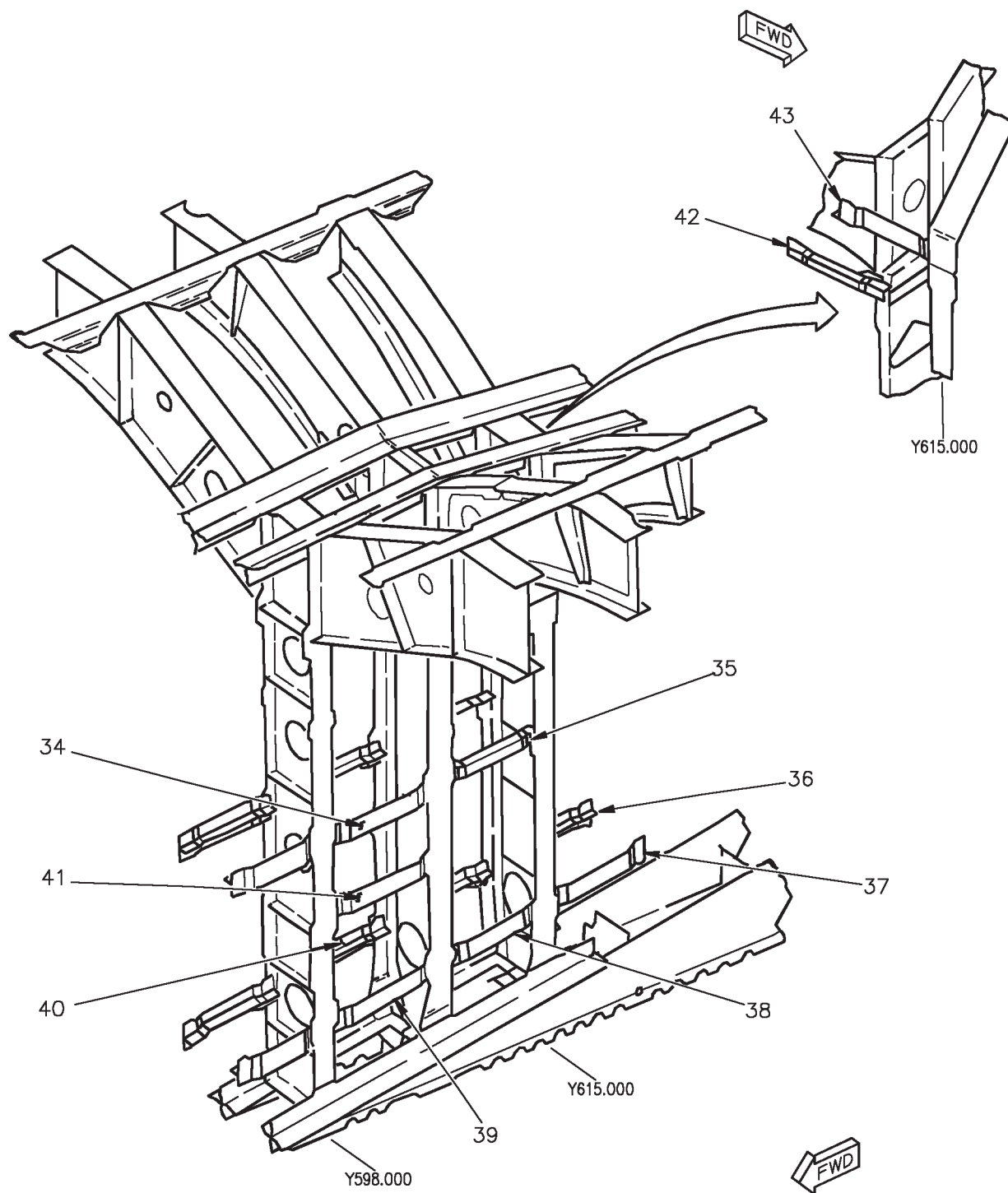


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 6)

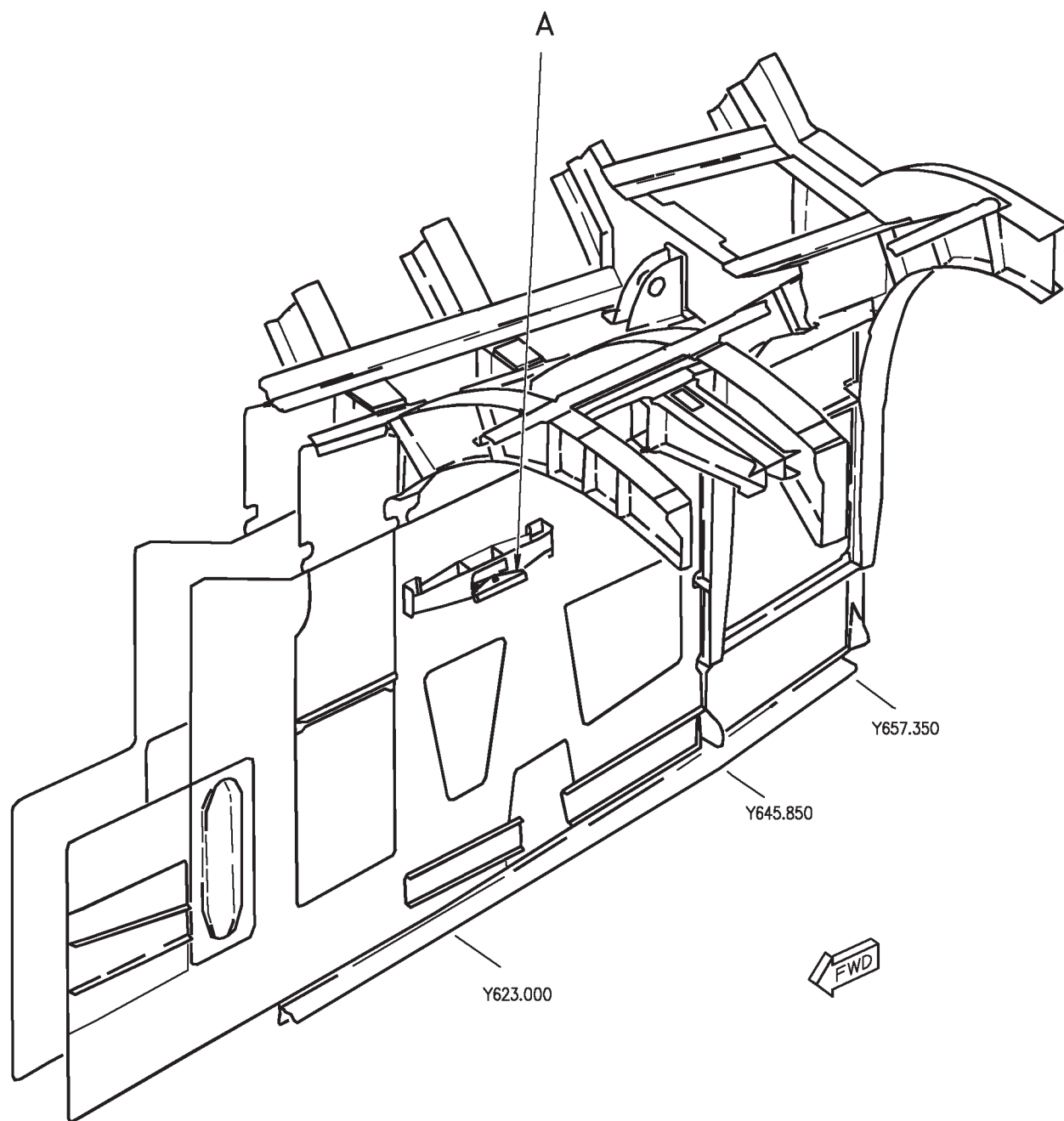


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 7)

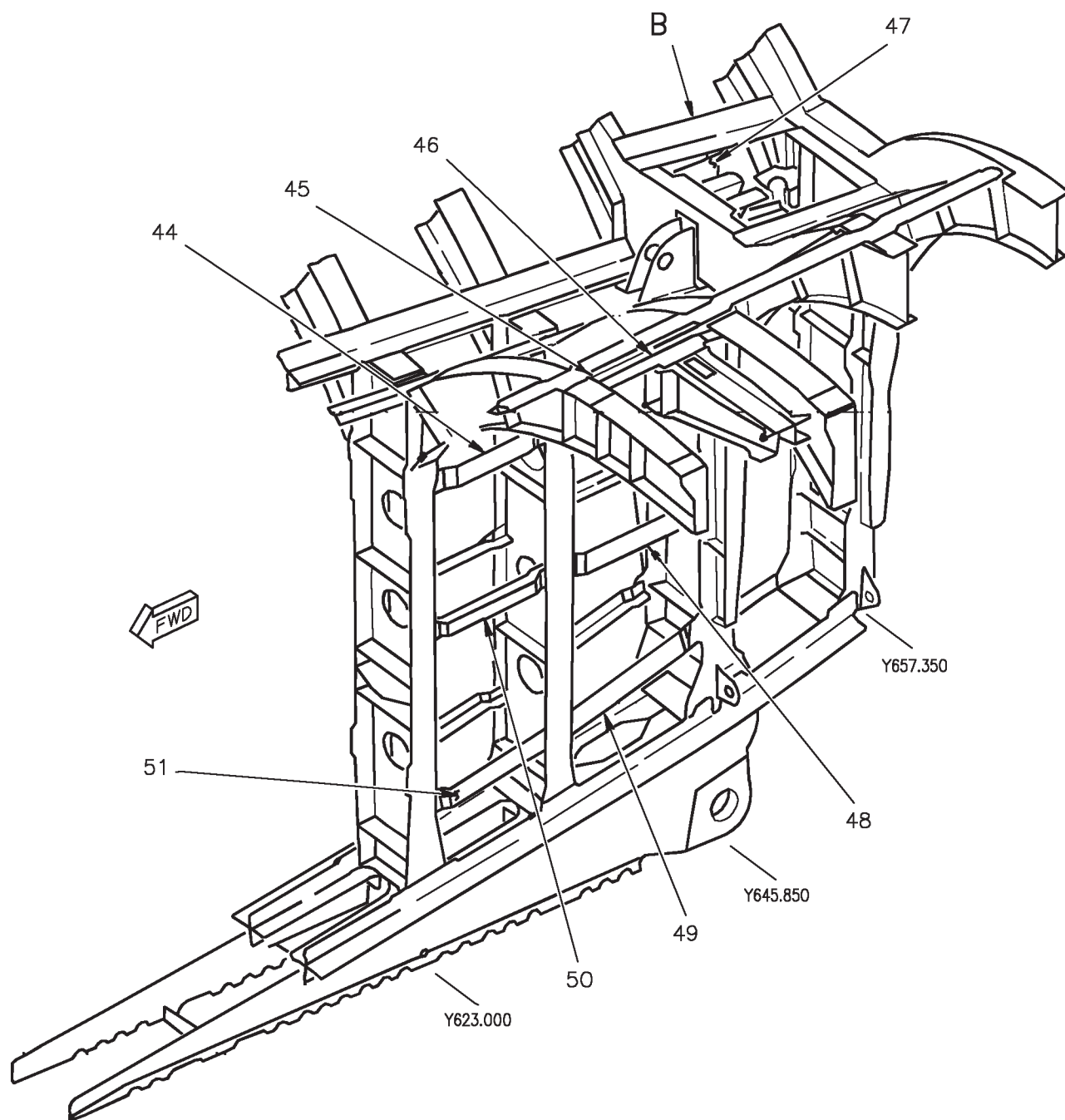


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 8)

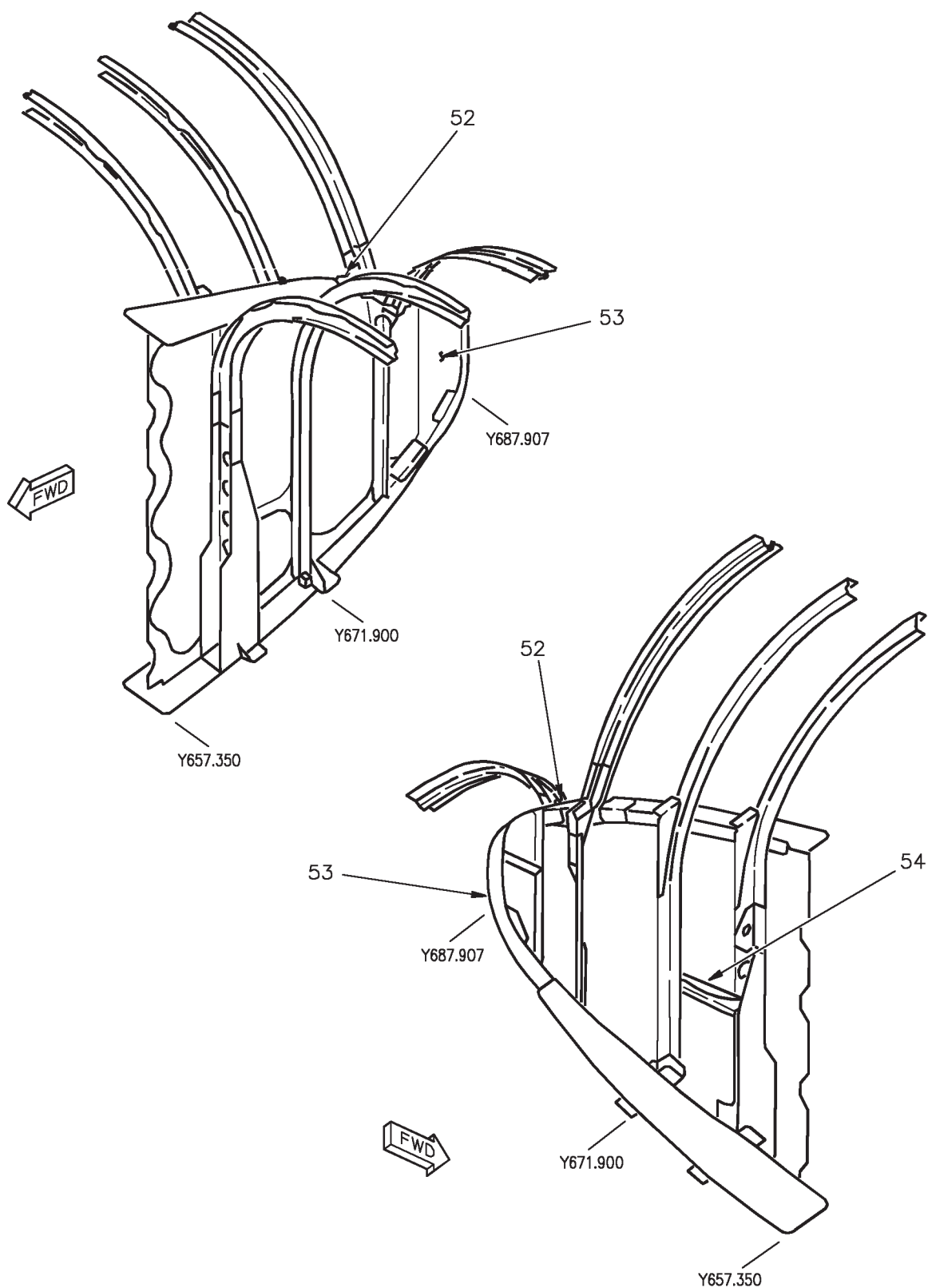


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 9)

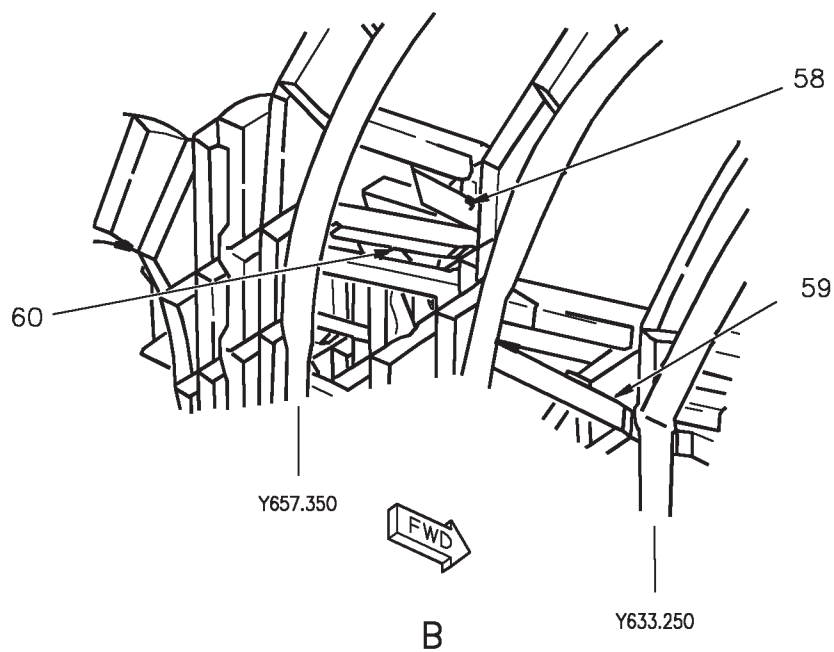
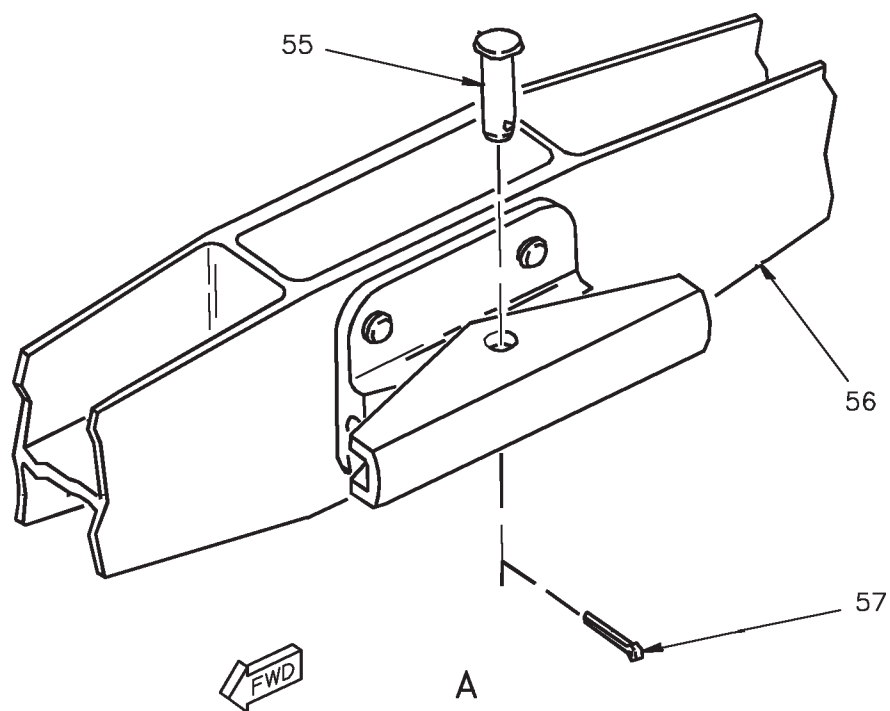


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 10)

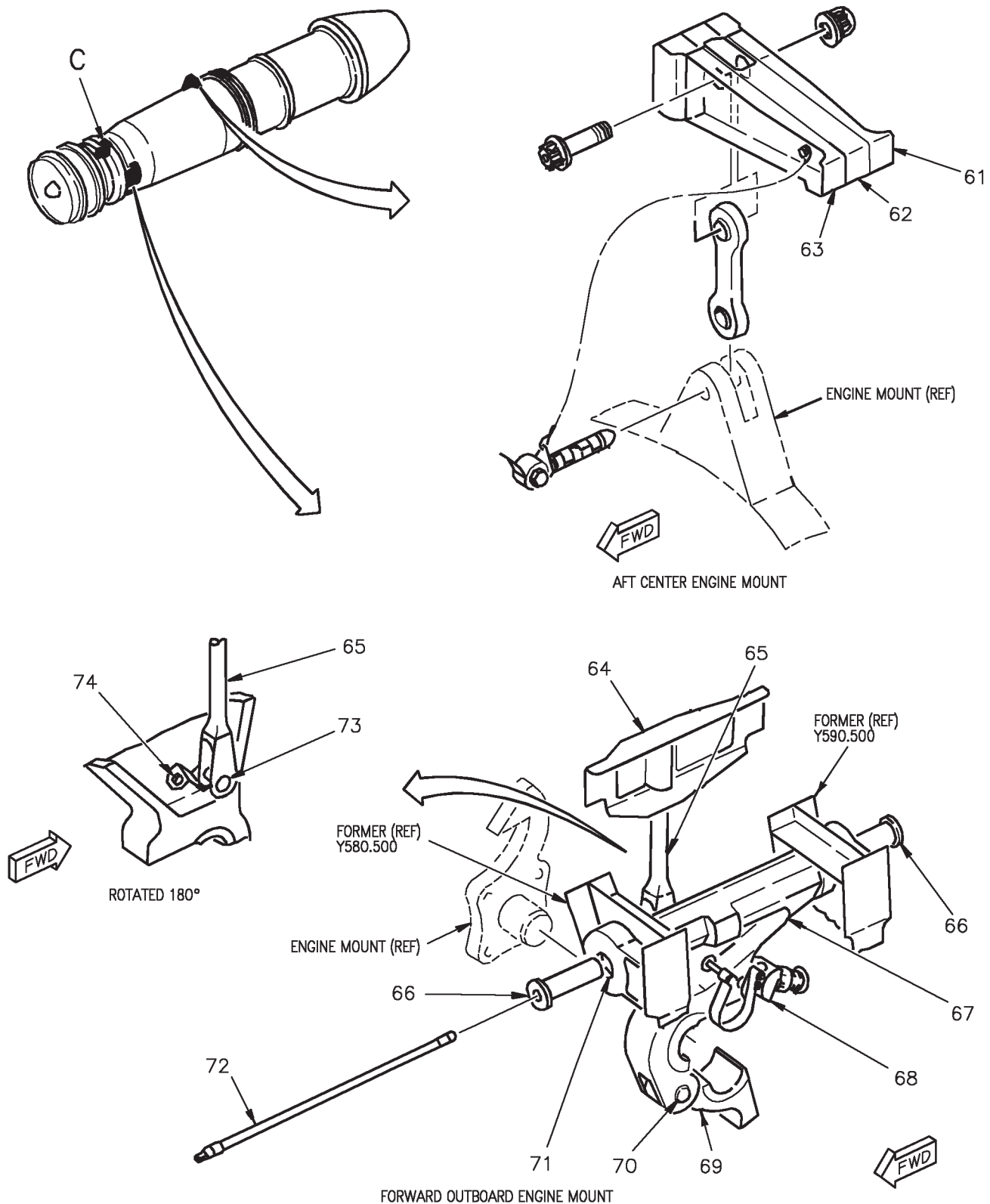


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 11)

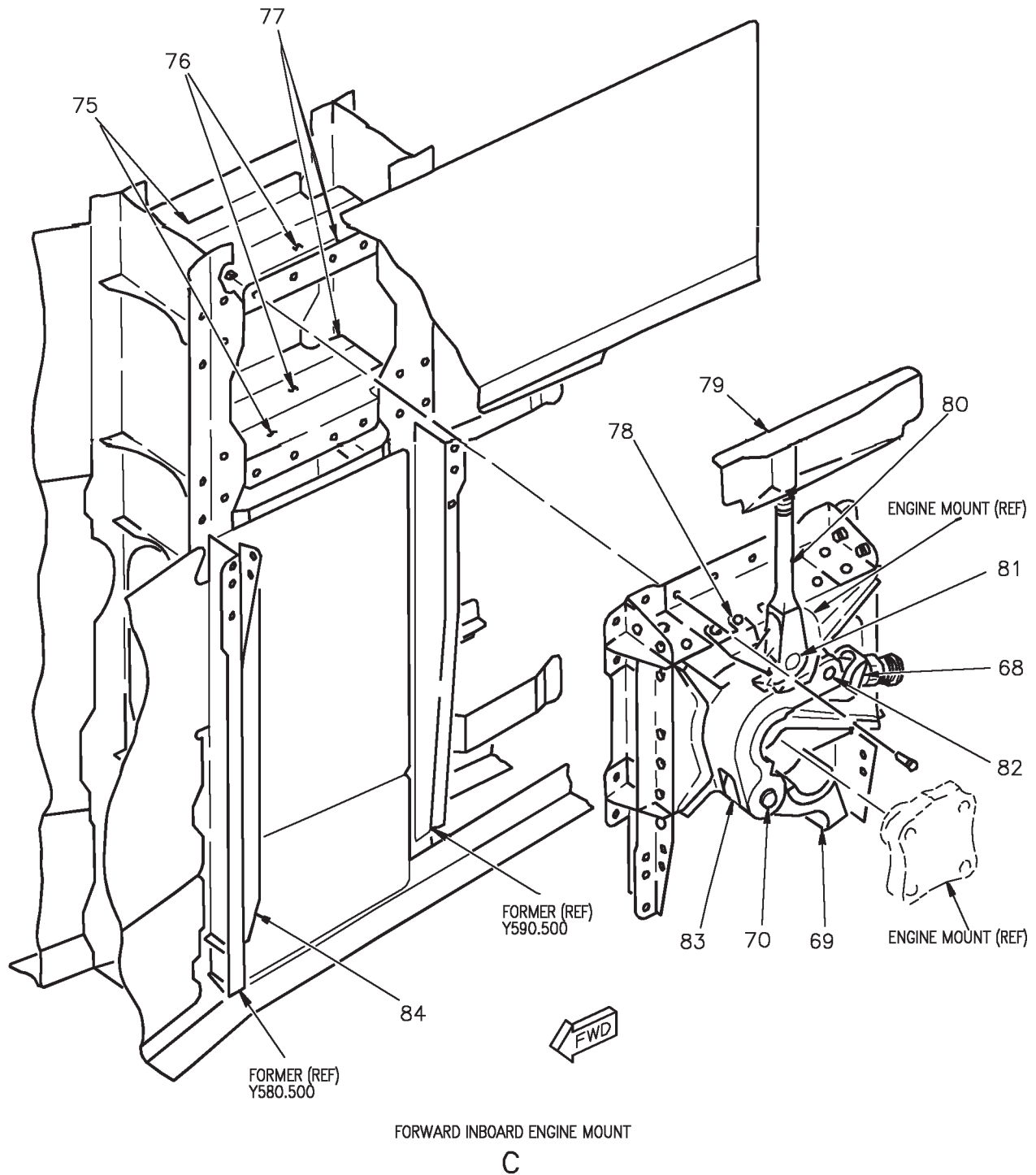


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 12)

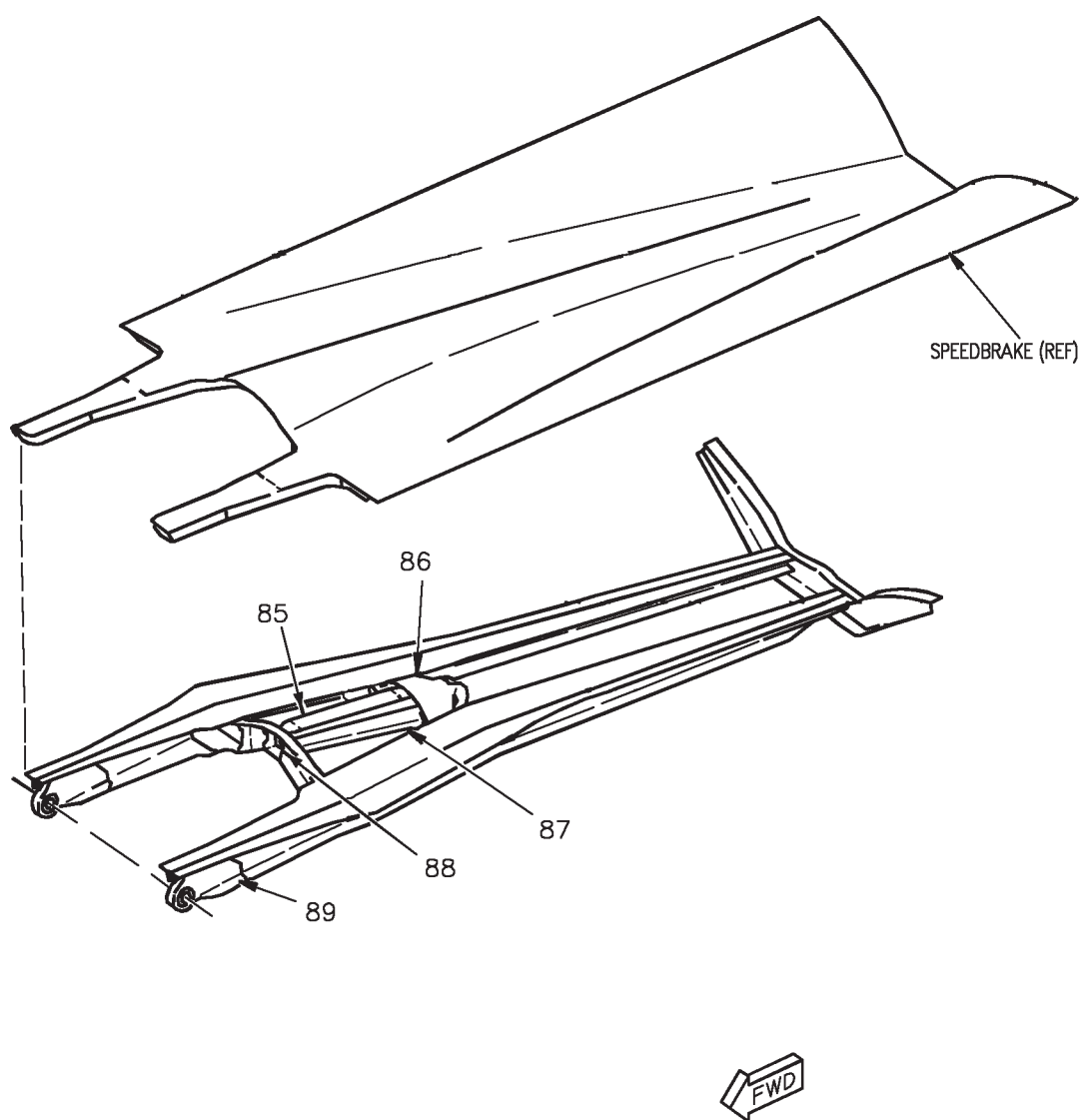


Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 13)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 1 | Panel | 7075-T76 Alclad, Sheet | Surface |
| 2 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 3 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 4 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 5 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 6 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 7 | Support | 7049-T73 Al Aly, Forging | Surface, Pitting |
| 8 | Support | 7075-T76 Alclad, Sheet | Surface |
| 9 | Closure Angle | 7075-T76 Alclad, Sheet | Surface |
| 10 | Cover | 7075-T7351 Al Aly, Plate | Pitting |
| 11 | Floor | 7075-T62 Al Aly, Sheet | Surface |
| 12 | Plate | 7149-T73 Al Aly, Forging | Surface, Pitting |
| 13 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 14 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 15 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 16 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 17 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 18 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 19 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 20 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 21 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 22 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 23 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 24 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 25 | Support | 7075-T76 Al Aly, Extrusion | Pitting |

Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 14)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 26 | Plate | 7075-T62 Al Aly, Sheet | Surface |
| 27 | Support | 7075-T76 Al Aly, Extrusion | Pitting |
| 28 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 29 | Stiffener | 7075-T62 Al Aly, Sheet | Surface |
| 30 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 31 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 32 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 33 | Web | 7075-T6 Al Aly, Sheet | Surface |
| 34 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 35 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 36 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 37 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 38 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 39 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 40 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 41 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 42 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 43 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 44 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 45 | Support | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 46 | Fitting | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 47 | Support | 7075-T6 Alclad, Sheet | Surface |
| 48 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |
| 49 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 50 | Stringer | 7075-T76511 Al Aly, Extrusion | Pitting |

Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 15)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|-------------------------------|------------------|
| 51 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 52 | Cap | 2219-T851 Al Aly, Plate | Pitting |
| 53 | Former | 2219-T851 Al Aly, Plate | Pitting |
| 54 | Support | 7075-T62 Al Aly, Sheet | Surface |
| 55 | Pin | Cres | — |
| 56 | Stop | 17-4PH Cres, Bar | — |
| 57 | Cotter Pin | Cres | — |
| 58 | Support | 7075-T6 Alclad, Sheet | Surface |
| 59 | Stringer | 7075-T76 Al Aly, Extrusion | Pitting |
| 60 | Intercostal | 7075-T62 Alclad, Sheet | Surface |
| 61 | Support | 7075-T73 Al Aly, Die Pressing | Surface, Pitting |
| 62 | Support | 7075-T73 Al Aly, Die Pressing | Surface, Pitting |
| 63 | Support | 7075-T73 Al Aly, Die Pressing | Surface, Pitting |
| 64 | Beam | 7075-T73 Al Aly, Die Pressing | Surface, Pitting |
| 65 | Support | 2024-T8511 Al Aly, Bar | Pitting |
| 66 | Pin | PH13-8MO Cres, Bar | — |
| 67 | Mount | PH13-8MO Cres, Forging | — |
| 68 | Adapter | PH13-8MO Cres, Bar | — |
| 69 | Clamp Mount | PH13-8MO Cres, Forging | — |
| 70 | Pin | PH13-8MO Cres, Bar | — |
| 71 | Bushing | PH13-8MO Cres, Bar | — |
| 72 | Stud | 304 Cres, Bar | — |
| 73 | Bolt | 4140 Steel, Bar | Surface, Pitting |
| 74 | Bracket | 2024-T72 Alclad, Sheet | Surface |
| 75 | Support | 7075-T6511 Al Aly, Extrusion | Pitting |

Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 16)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|------------------------------|------------------|
| 76 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 77 | Support | 7075-T6511 Al Aly, Extrusion | Pitting |
| 78 | Bracket | 7075-T62 Al Aly, Sheet | Surface |
| 79 | Beam | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 80 | Support | 2024-T8511 Al Aly, Bar | Pitting |
| 81 | Bolt | 4140 Steel, Bar | Surface, Pitting |
| 82 | Pin | PH13-8MO Cres, Bar | — |
| 83 | Mount | PH13-8MO Cres, Forging | — |
| 84 | Support | 7075-T6511 Al Aly, Extrusion | Pitting |
| 85 | Intercostal | 7075-T76 Al Aly, Extrusion | Pitting |
| 86 | Former | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 87 | Intercostal | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 88 | Former | 7075-T73 Al Aly, Forging | Surface, Pitting |
| 89 | Hinge Half | 7075-T7311 Al Aly, Forging | Surface, Pitting |

Figure 3. Aft Fuselage Corrosion Prone Areas (Sheet 17)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

AFT FUSELAGE SEALING

This WP supersedes WP035 00, dated 1 February 1995.

Reference Material

| | |
|--|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Aft Fuselage Finish System And Markings | WP036 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application | WP011 00 |

Alphabetical Index

| Subject | Page No. |
|------------------------------------|----------|
| Introduction | 1 |
| Sealing..... | 1 |
| Speed Brake Well Fillet Seal | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. Exterior sealing on the aft fuselage is for corrosion control. Sealing prevents moisture entry, dissimilar metal contact, and provides a barrier between structure, skin, and elements.

3. **SEALING.** Use MIL-S-83430, class B-4 sealing compound (WP010 00 and A1-F18AC-SRM-200,

WP011 00). Use class B for fay surface, form in place, butt joint, and fastener sealing. MIL-S-8802 or MIL-S-81733 is the alternate, except when graphite epoxy structure or form in place seals are used.

a. Removable covers/doors or access panels on mold line surfaces are sealed with form in place seals.

NOTE

Fay surface and butt joint sealing may be done simultaneously by being sure sealant squeezeout from the fay surface fills the butt joint gap.

b. The periphery of all external permanent skins, structure, components, or parts are fay surface sealed. This includes items attached with removable fasteners and do not require removal for scheduled maintenance. Some areas are categorized as requiring external sealant smoothness requirements; the speed brake mold line edges, horizontal stabilator actuator compartment, and horizontal stabilator spindle well are in this category.

c. The periphery of all external permanent skins, structure, components, or parts are butt joint or fillet sealed, this includes the horizontal stabilator actuator compartment, and horizontal stabilator spindle well.

d. All permanent fasteners except aluminum rivets, see e. below, installed in mold line and other exterior categorized surfaces are wet installed with sealing compound.

e. All aluminum rivets in mold line surfaces and exterior categorized areas are installed wet with primer or sealant, except fast rivets, which are wet installed with primer.

4. SPEED BRAKE WELL FILLET SEAL. See figure 1.**Support Equipment Required**

None

Materials Required**NOTE**

Alternate item part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|---------------------------------|--------------|
| CCC-C-440 TYPE 1 CLASS | Cheesecloth |

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

| Specification or Part Number | Nomenclature |
|--|--|
| DS-108F 5772 048 MIL-S-83430 CLB-4 | Solvent, Wipe Cleaning Compound Sealing Compound |

WARNING

Solvent should be used with care. Gloves must be worn to prevent injury.

Cleaning compound may cause skin irritation. Avoid contact with skin and clothing. Wash thoroughly after handling.

a. Clean areas to be sealed with cheesecloth moistened with solvent or cleaning compound.

b. Allow to air dry for 15 minutes before application of sealant.

WARNING

Sealing compound is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

c. Apply fillet seal on both the left and right sides of the 74A330700 skin and across the forward edge of skin (A1-F18AC-SRM-200, WP011 00).

d. Apply finish system as required (WP036 00).

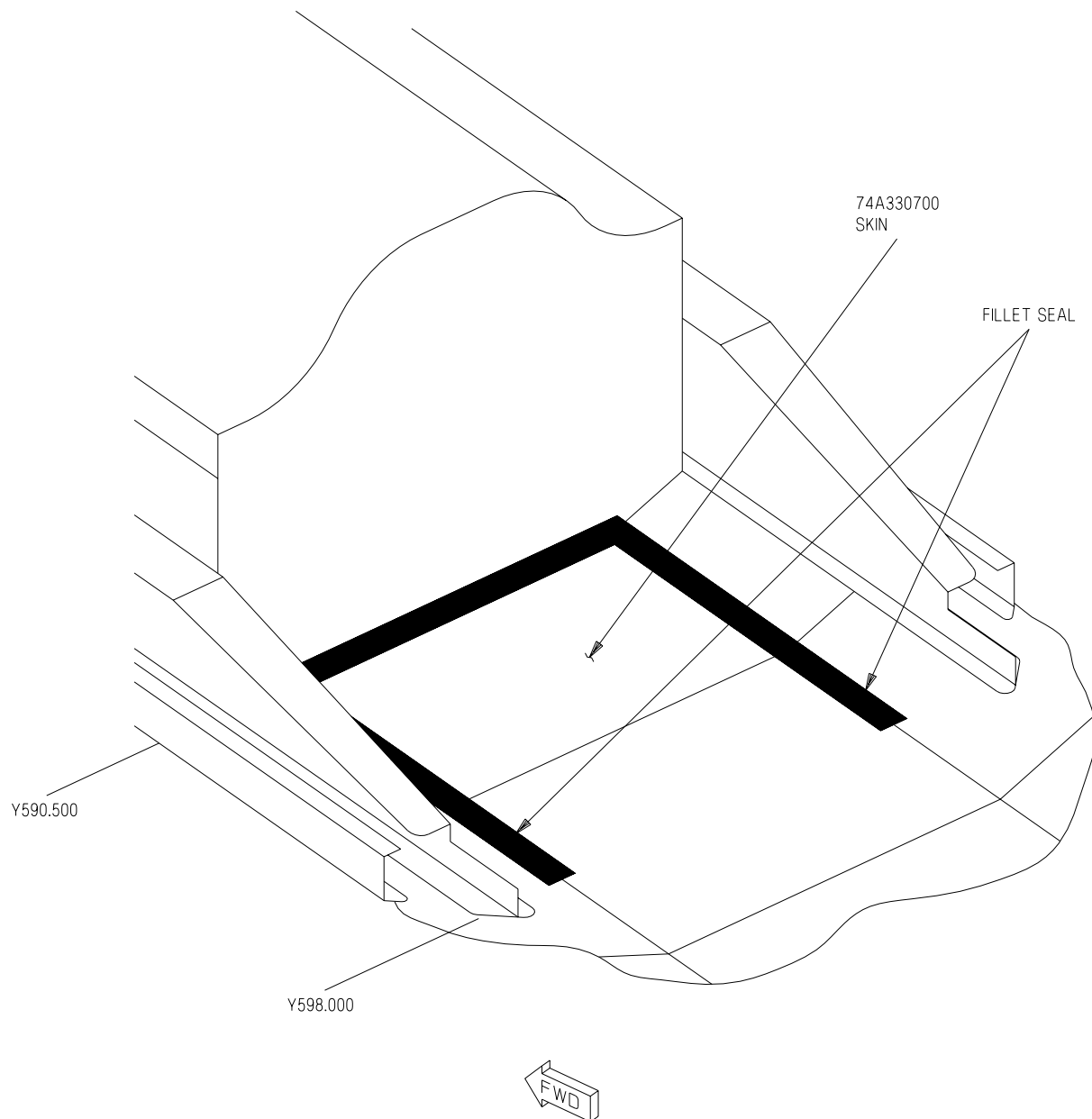


Figure 1. Speed Brake Well Fillet Seal

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

AFT FUSELAGE FINISH SYSTEM AND MARKINGS

Reference Material

| | |
|--------------------------------------|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Structure Repair, Aft Fuselage | A1-F18AE-SRM-750 |

Alphabetical Index

| Subject | Page No. |
|----------------------------|----------|
| Description | 1 |
| Aircraft Refinishing | 3 |
| Finish System | 2 |
| Markings..... | 3 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|-------------------|------|--|-----------------|---------|
| F/A-18 AFC 77 | — | Addition of Rub Block to Horizontal Stabi- lizer (ECP MDA-F/A-18-00213) | 1 Dec 89 | — |
| F/A-18 AFC 126 | — | Addition of Deployable Flight Incident Recorder Set (DFIRS) (ECP MDA-F/A-18-00321) | 1 Aug 92 | — |

1. DESCRIPTION.

applicable work package in A1-F18AE-SRM-750.

2. Aft fuselage structure and skins are aluminum alloy, graphite epoxy, and titanium. On 163985 AND UP, some parts require different damage evaluation which may affect finish system application. For identification of these parts refer to

Support Equipment Required

None

Materials Required**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|-------------------------------|--|
| MIL-P-23377 TY1 | Primer |
| MIL-P-85582, TY1CL1 or CL2 | Primer |
| MIL-P-23377, TY2 | Primer |
| MIL-P-85582, TY2CL1 | Primer |
| MIL-C-83286 | Aliphatic Polyurethane Enamel |
| MIL-C-85285, TY1 | Coating, Polyurethane, High Solids |

3. FINISH SYSTEM. See figure 1.**WARNING**

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

b. One coat MIL-P-23377, Type 2, Class 1 primer on mold line surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) White, FED-STD-595 color no. 17925, aliphatic polyurethane enamel:

(a) Engine bay.

(b) Horizontal spindle well.

(2) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.

(3) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.

(4) Gray, FED-STD-595 color no. 36320, aliphatic polyurethane enamel.









d. On 161353 THRU 162853 AFTER F/A-18 AFC 77, apply antichafe coating to areas shown on detail A. Color of antichafe coating to match adjacent area. For preparation and application of antichafe coating (WP012 00).

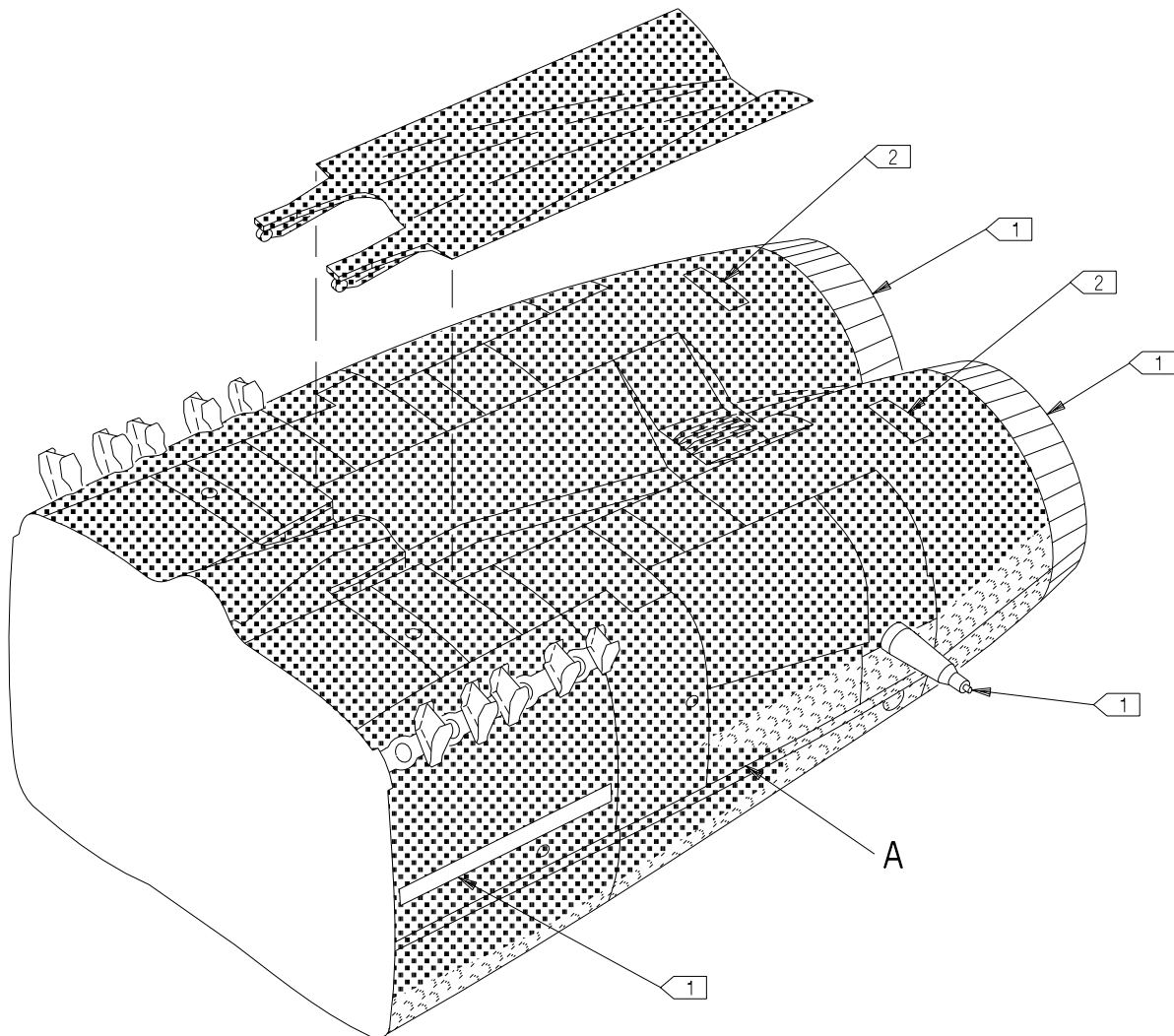
4. **MARKINGS.** See figures 2 and 3.

a. Markings are silk screen applied using contrasting commercial gray enamel. Use table 1 to determine applicable marking color number.

5. **AIRCRAFT REFINISHING.** On 161353 THRU 161925, if complete aircraft requires refinishing, use finish system color diagram shown on figure 1 for 161926 THRU 163175.

Table 1. Marking Color Number

| Finish System Color Number | | Marking Color Number |
|---|-----------------------------------|-----------------------------------|
|  3 | Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 35237 |
|  4 | Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 36375 |
|  1 | Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 35237 |
|  2 | Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 36320 |
| Gray, FED-STD-595 color no. 36495 | | Gray, FED-STD-595 color no. 36375 |
| LEGEND | | |
|  1 | 161353 THRU 161925. | |
|  2 | 161926 AND UP. | |
|  3 | F/A-18A 161926 THRU 161929. | |
|  4 | 161930 AND UP. | |



161926 AND UP



Figure 1. Finish System (Sheet 1)

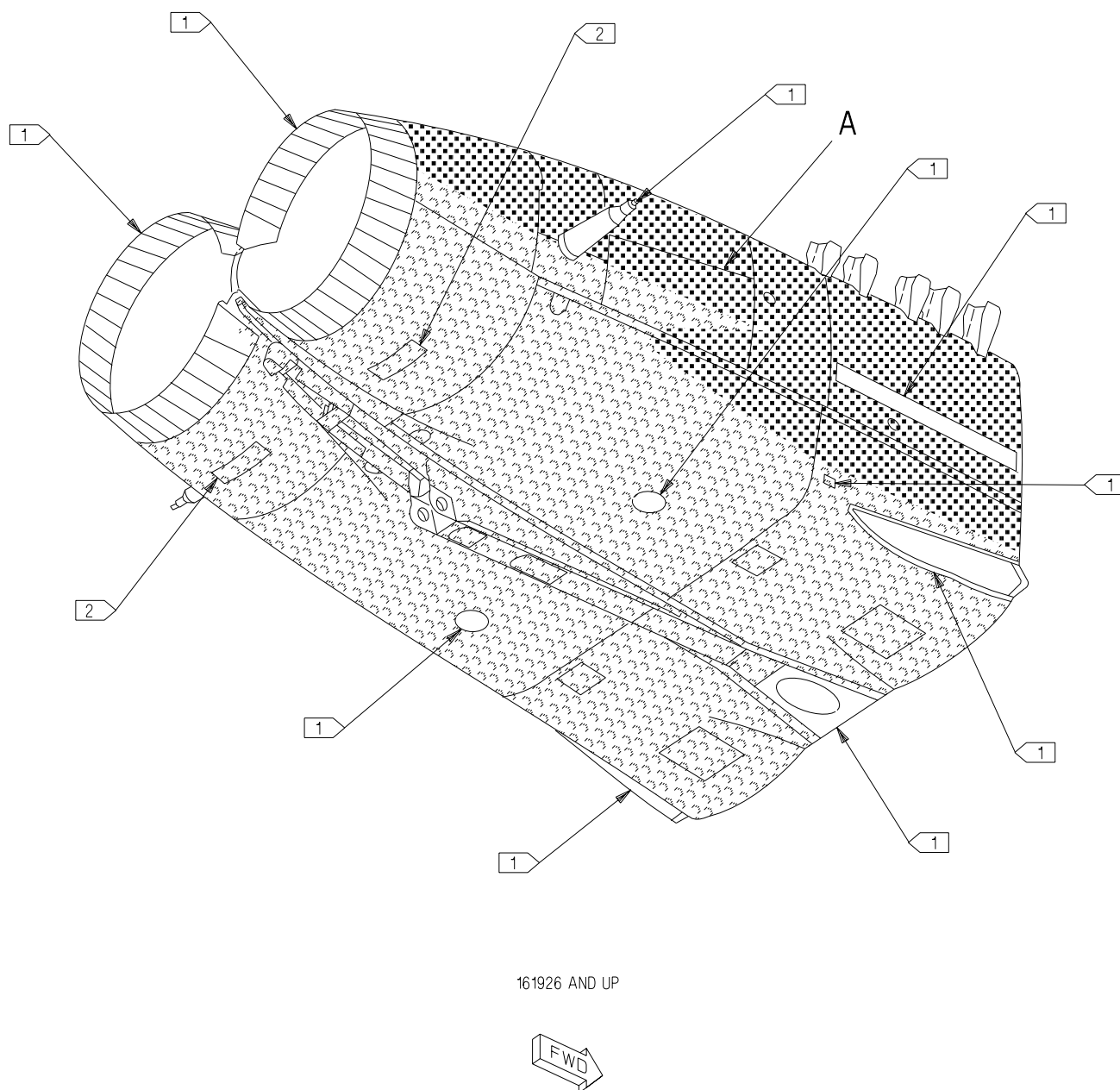
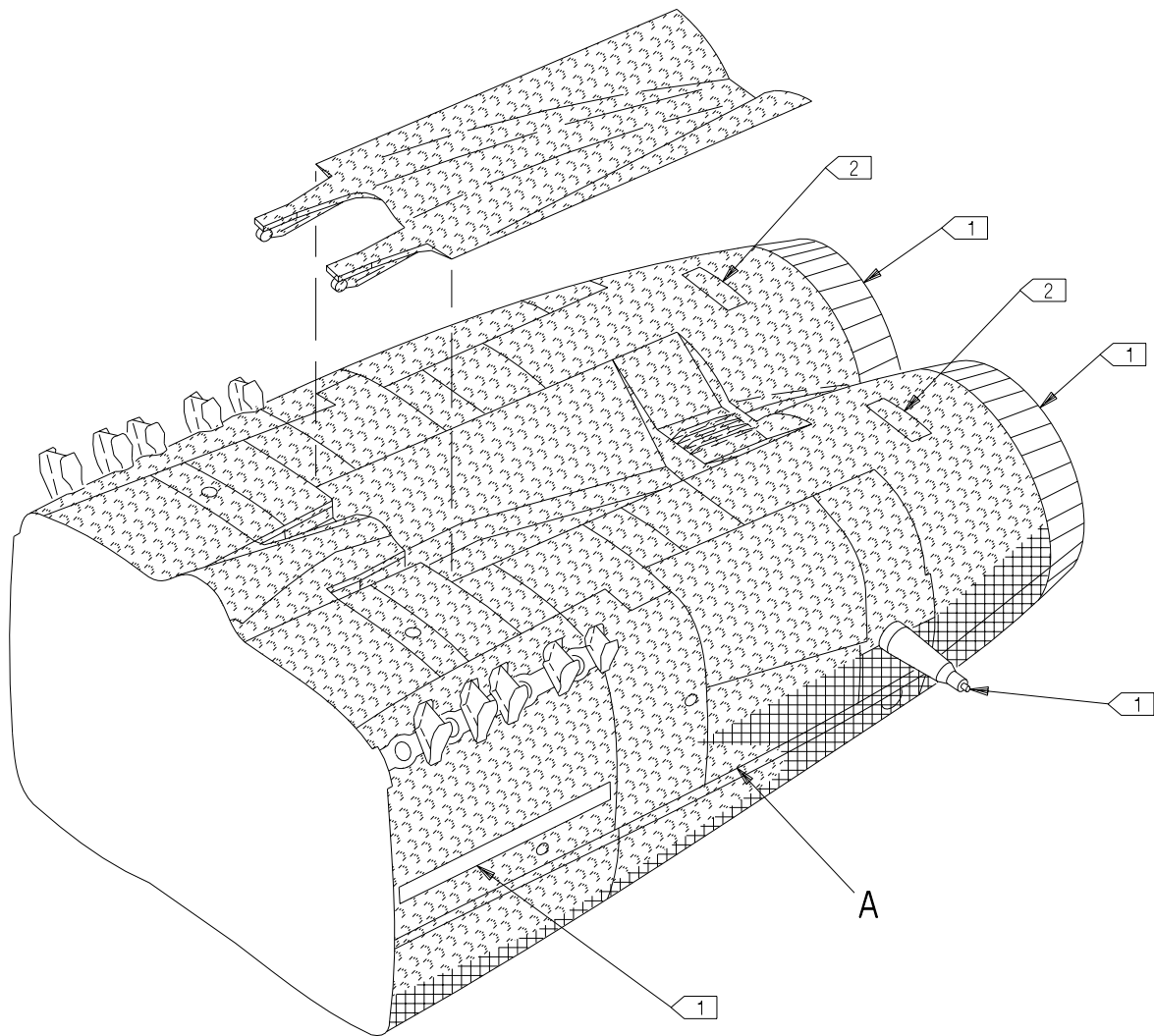


Figure 1. Finish System (Sheet 2)



161353 THRU 161925



Figure 1. Finish System (Sheet 3)

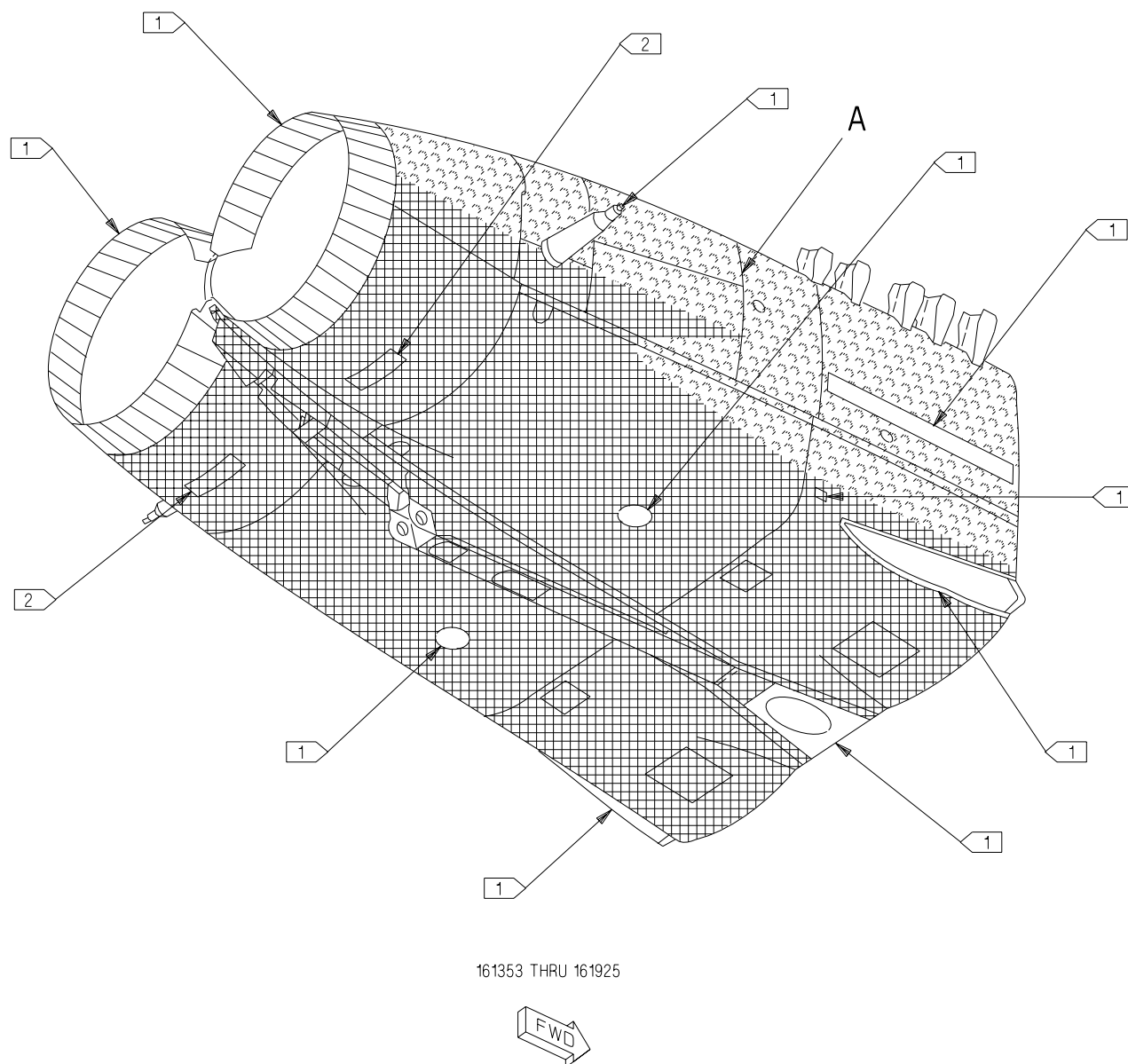


Figure 1. Finish System (Sheet 4)

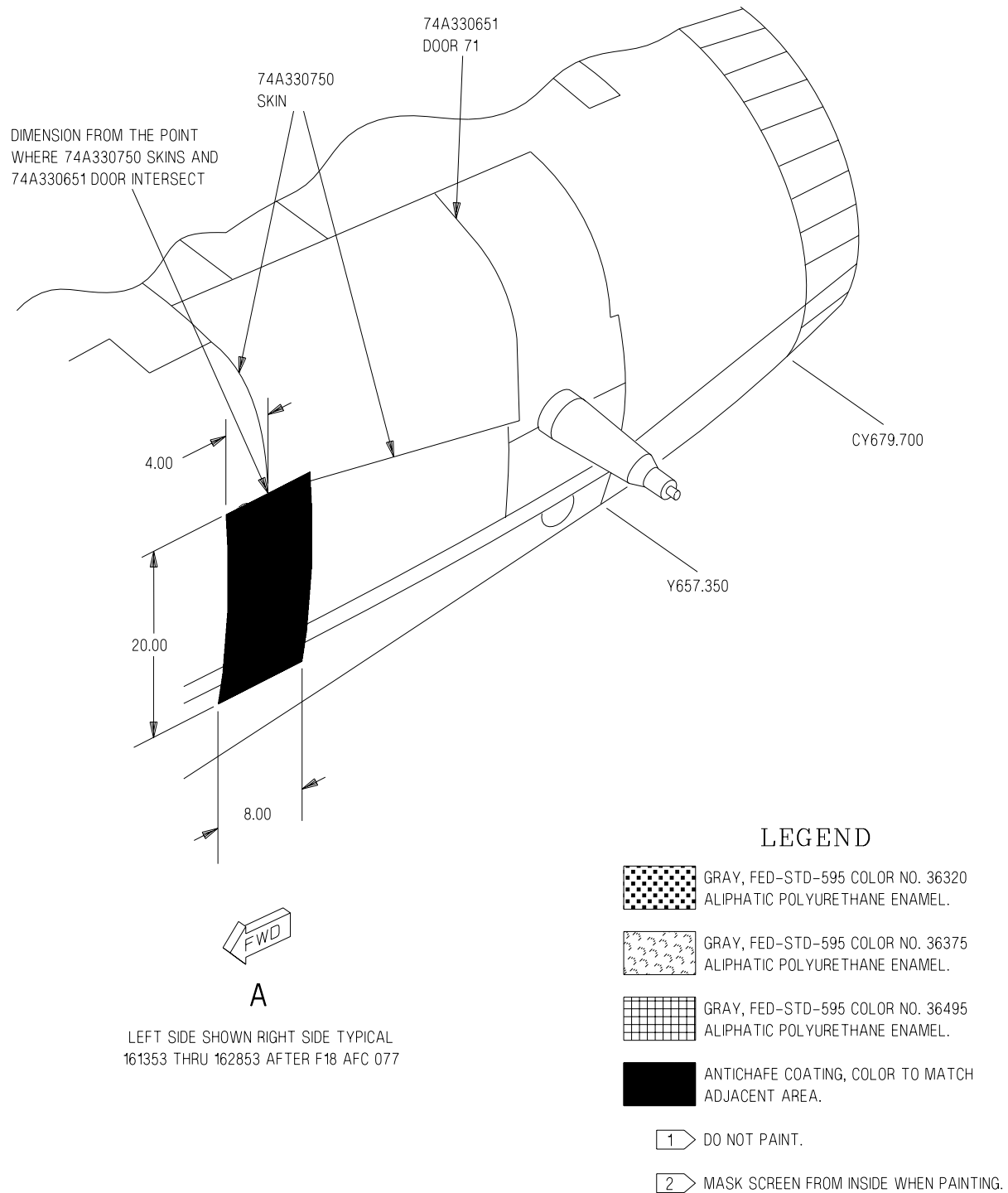


Figure 1. Finish System (Sheet 5)

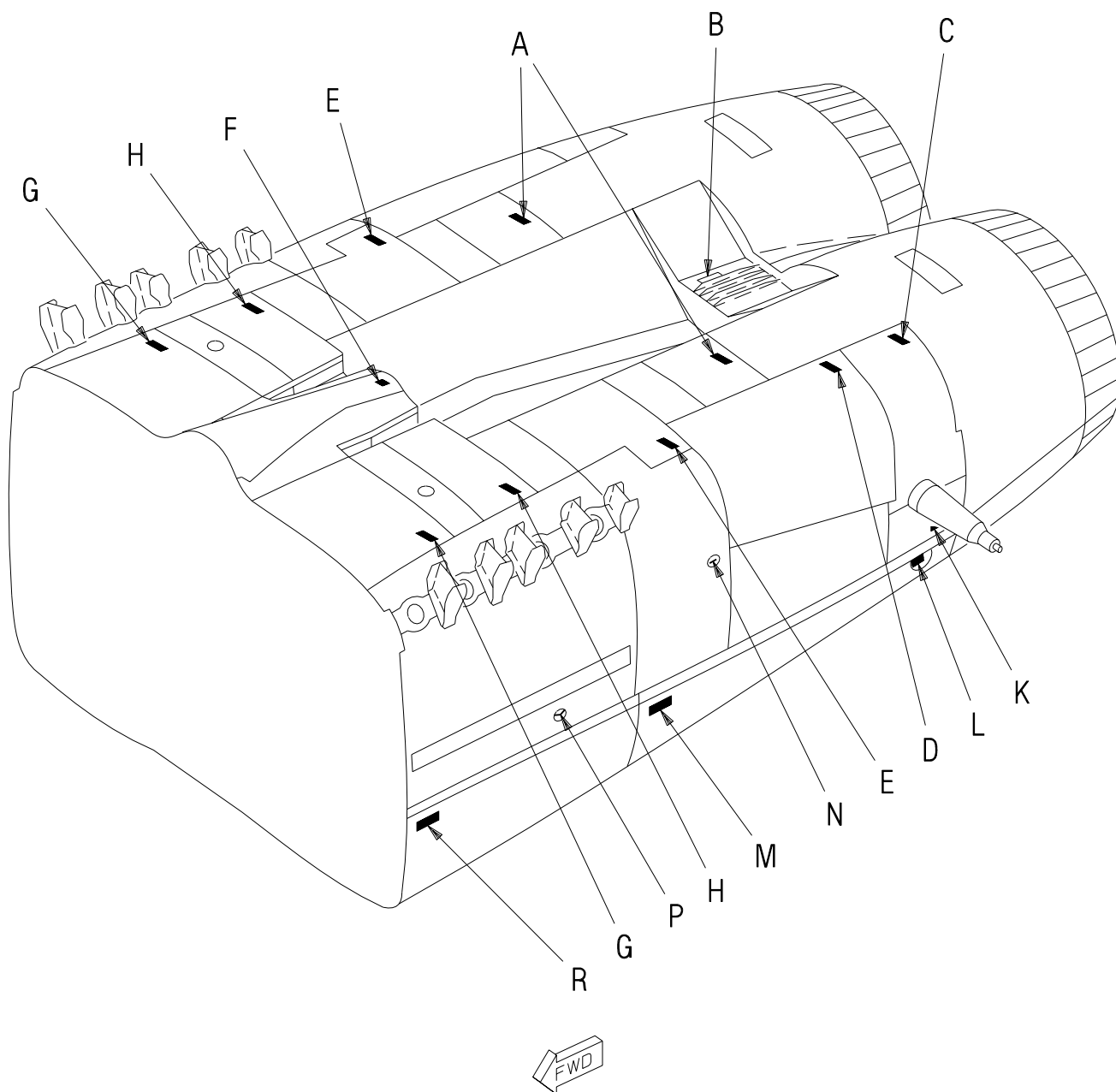


Figure 2. Door Markings (Sheet 1)

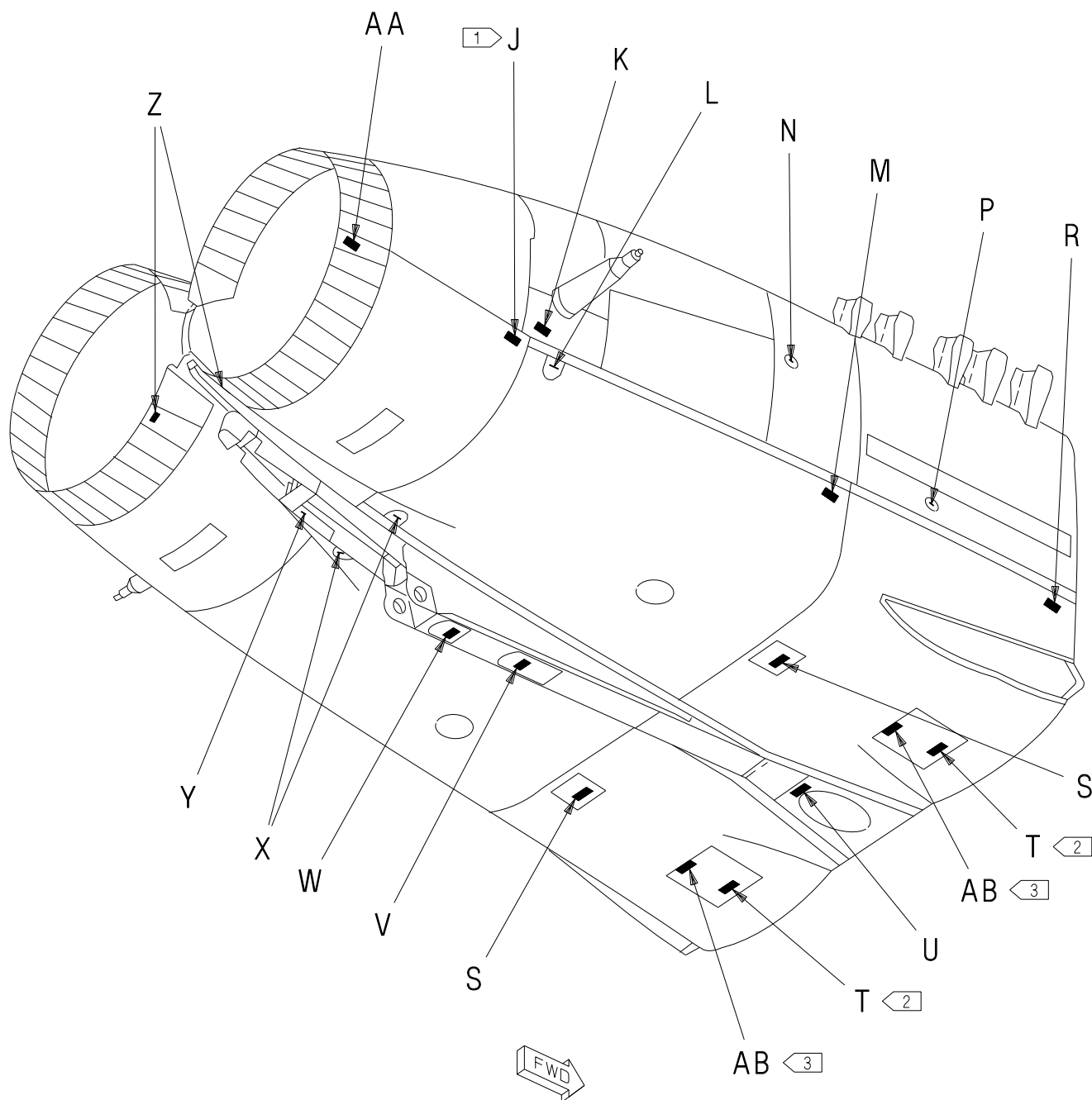


Figure 2. Door Markings (Sheet 2)

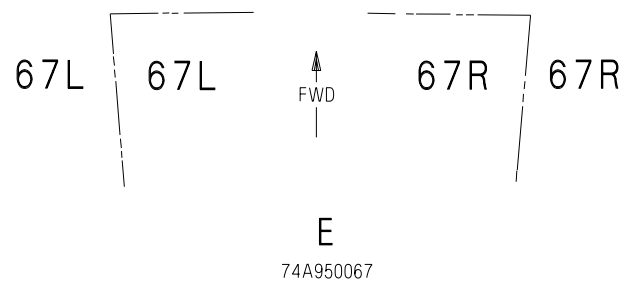
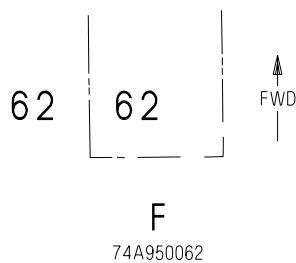
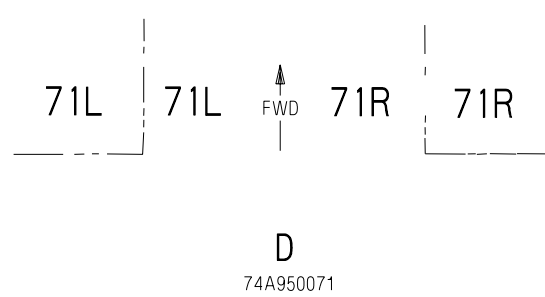
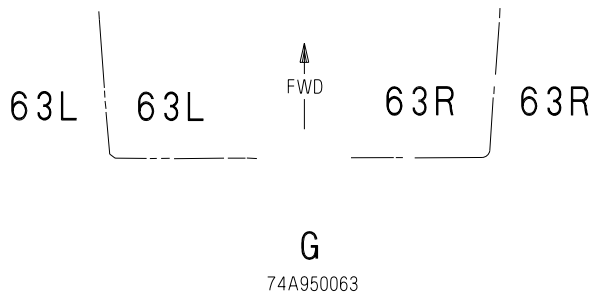
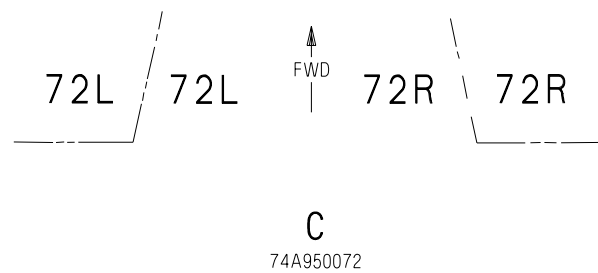
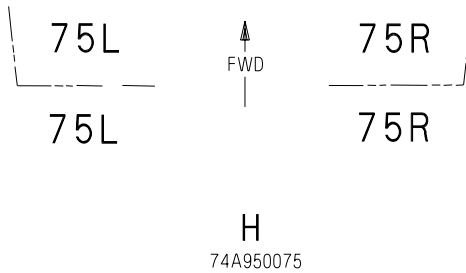
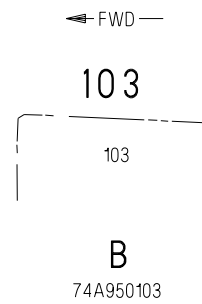
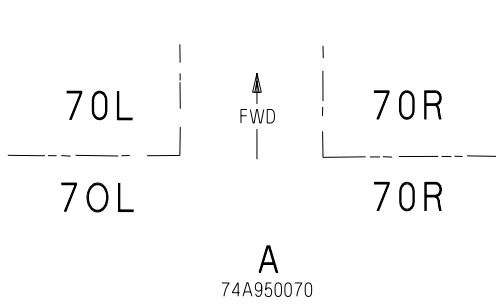


Figure 2. Door Markings (Sheet 3)

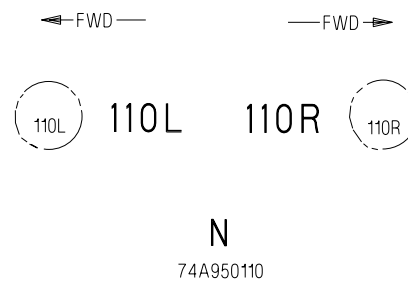
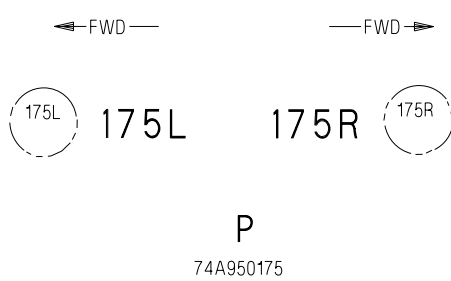
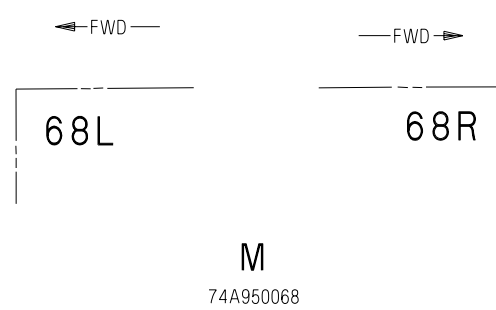
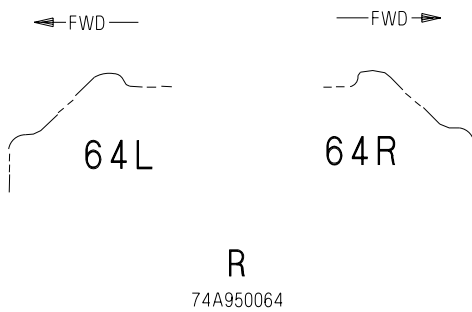
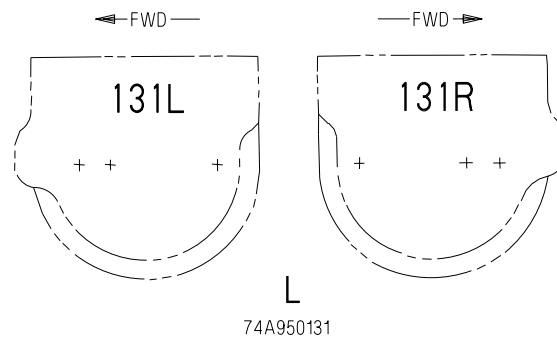
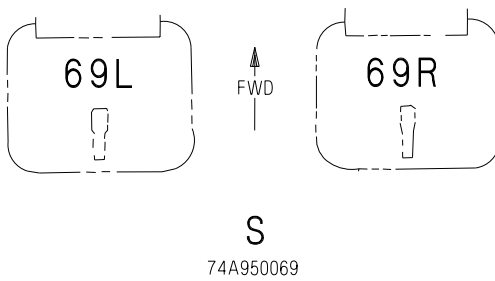
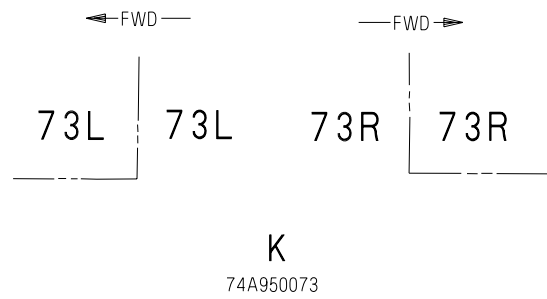
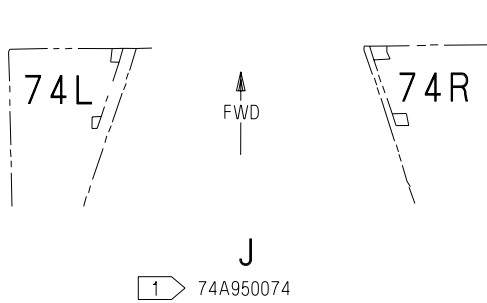
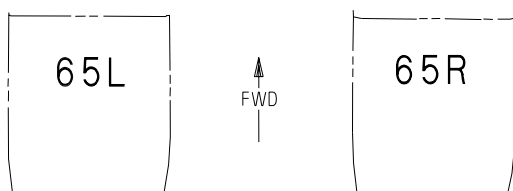
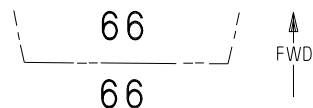


Figure 2. Door Markings (Sheet 4)



2 T

74A950065-2001,-2002



U

74A950066

←FWD→

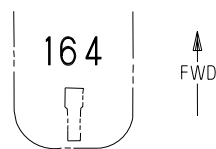
166L

→FWD←

166R

AA

74A950166



V

74A950164

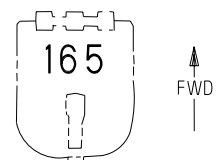
167L



167R

Z

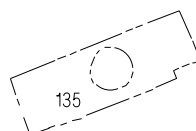
74A950167



W

74A950165

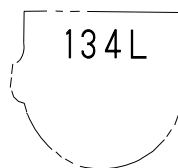
←FWD→



Y

74A950135

←FWD→



X

74A950134

→FWD←

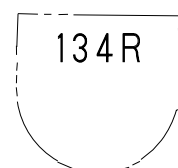
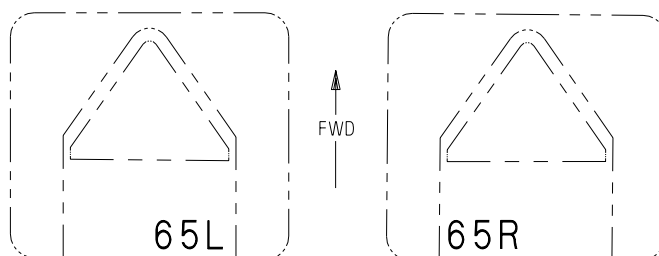


Figure 2. Door Markings (Sheet 5)



3 AB

74A950065-2003,-2004

LEGEND

- 1 161353 THRU 161741.
- 2 F/A-18A AND F/A-18C 163427 THRU 163498.
F/A-18B AND F/A-18D 163434 THRU 163700.
- 3 F/A-18C 163499 AND UP.
F/A-18D 163707 AND UP.

Figure 2. Door Markings (Sheet 6)

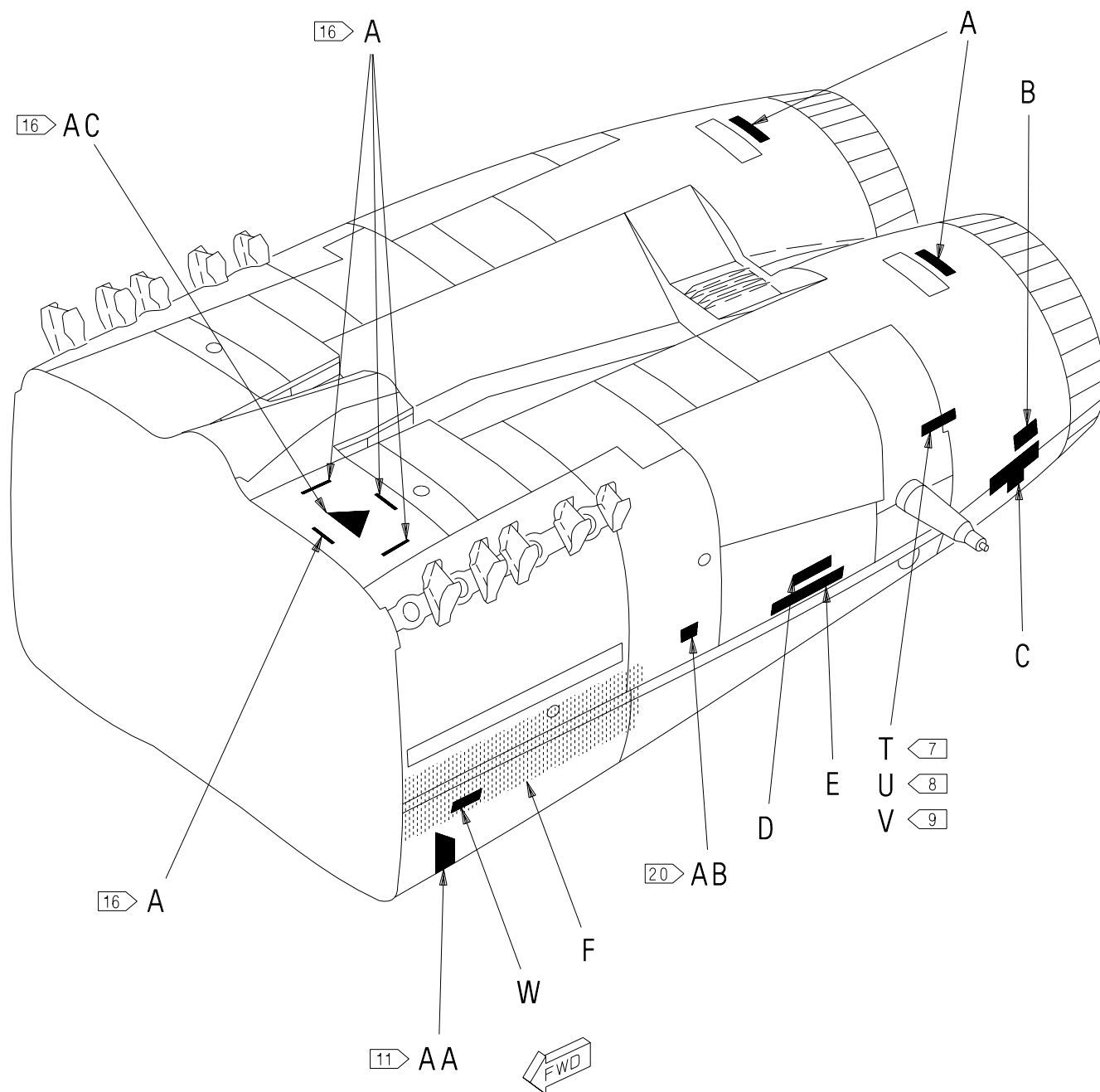


Figure 3. Instructional Markings and Insignia (Sheet 1)

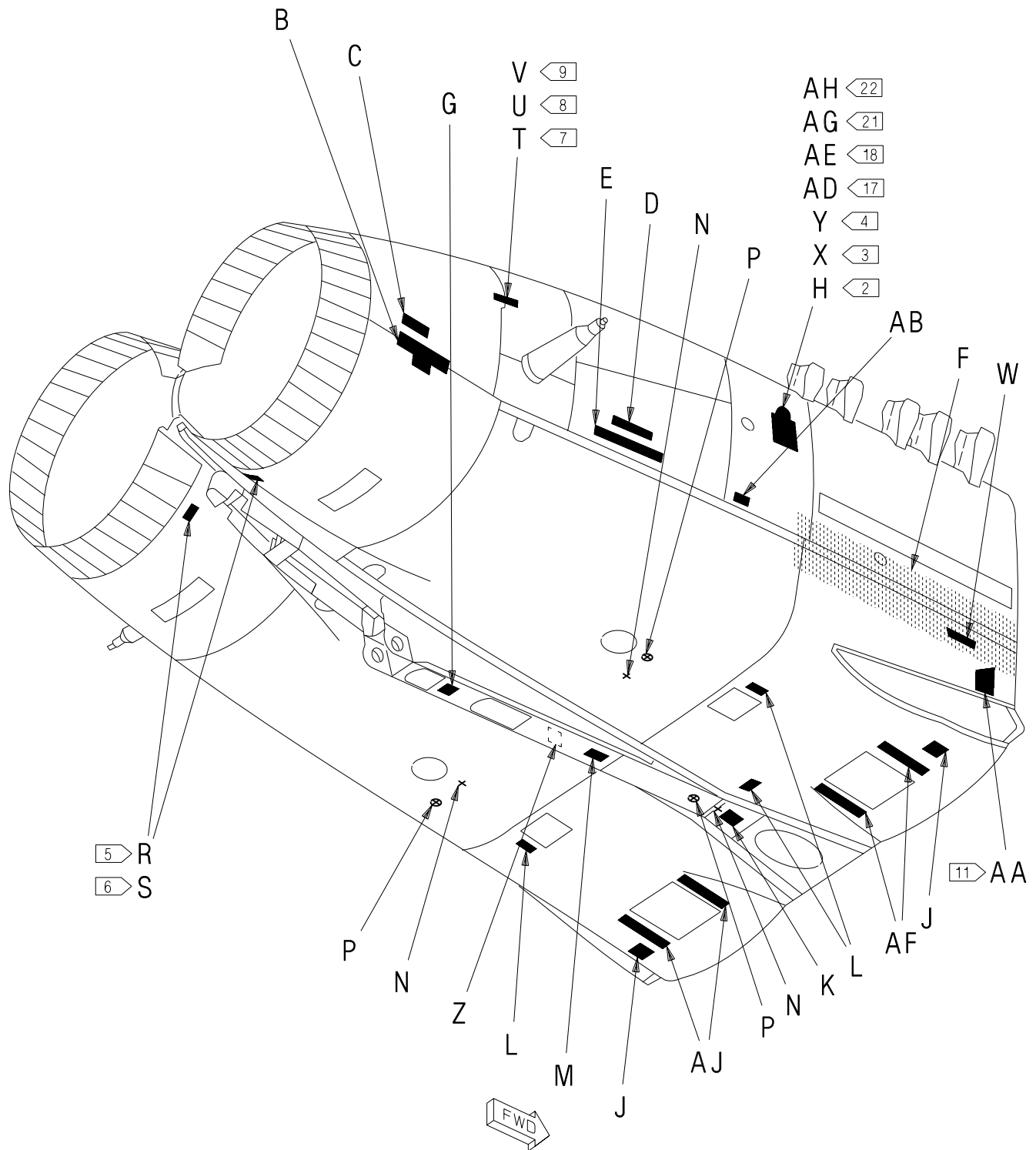


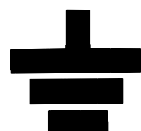
Figure 3. Instructional Markings and Insignia (Sheet 2)

NO STEP



A

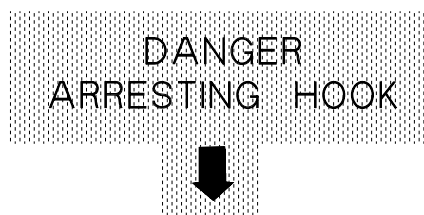
74A950304



GROUND (EARTH)
LOCATED INSIDE

B

74A950312



C

74A950320

G

74A950337-2005

F-18A

NAVY

D

74A950307

1 74A950379-2003

MARINES

160775

1 74A950379-2007

F

E

74A950306

Figure 3. Instructional Markings and Insignia (Sheet 3)

DATE COMPLETED

MCDONNELL DOUGLAS

EXTERIOR MOLDLINE

MMS-425 PRIMER

MMS-420 POLYURETHANE

ENAMEL

35237 GRAY

36375 GRAY

36495 GRAY

SPECIAL AREAS

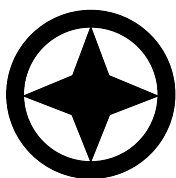
SPECIFICATIONS

- FOLD AREAS CONTROL SURFACE ENCLOSURES
CUTOUTS ETC SPEEDBRAKE DOOR AND WELL
MMS-425 PRIMER POLYURETHANE ENAMEL
(36375 GRAY)
- NLG MLG & WHEELS MIL-P-23377 PRIMER
MMS-420 POLYURETHANE ENAMEL INSIGNIA WHITE
- ENGINE AIR INTAKE DUCTS MMS-425 PRIMER
MMS-420 POLYURETHANE ENAMEL (36495 GRAY)
- COCKPIT MMS-425 PRIMER MMS-420
POLYURETHANE ENAMEL (36231) GRAY & 37038 BLACK
- DORSAL DECK MMS-425 PRIMER
MMS-420 POLYURETHANE ENAMEL INSIGNIA WHITE
- NOSE RADOME MMS-420 RADOME COATING 36375
GRAY
- ENGINE COMPARTMENT
MMS-425 PRIMER MMS-420 POLYURETHANE ENAMEL
INSIGNIA WHITE
- GUN COMPARTMENT
MMS-425 PRIMER MMS-420 POLYURETHANE ENAMEL
INSIGNIA WHITE
- AVIONICS COMPARTMENT MMS-425 PRIMER
MMS-420 POLYURETHANE ENAMEL INSIGNIA WHITE

INTERIOR SURFACES- MMS-425 PRIMER

H

2 74A950351-2005



P

74A950356



N

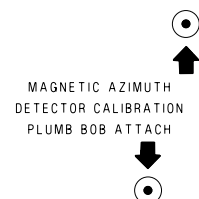
74A950357



O-156
(MIL-L-23699)

J

74A950339



K

74A950329

AUXILIARY POWER
UNIT EXHAUST

L

74A950355



M

74A950332

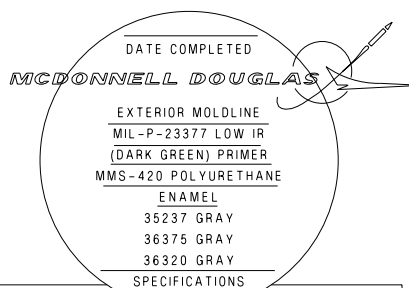
Figure 3. Instructional Markings and Insignia (Sheet 4)

CAUTION

DOOR 167L/R MUST BE CLOSED
PRIOR TO OPENING THE ENGINE
ACCESS DOOR 74L/R TO PREVENT
DAMAGE TO ARRESTING HOOK

R

5 74A950359-2001



SPECIAL AREAS

- FOLD AREAS CONTROL SURFACE ENCLOSURES
CUTOUTS ETC SPEEDBRAKE DOOR AND WELL
MIL-P-23377 LOW IR (DARK GREEN) PRIMER
MMS-420 POLYURETHANE ENAMEL (36320 GRAY)
- NLG MLG & WHEELS MIL-P-23377 PRIMER
MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE)
- ENGINE AIR INTAKE DUCTS-MMS-425 PRIMER
MMS-420 POLYURETHANE ENAMEL (36375 GRAY)
- COCKPIT MMS-425 PRIMER MMS-420
POLYURETHANE ENAMEL (36231) GRAY &
37038 BLACK)
- DORSAL DECK MMS-425 PRIMER,
MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE)
- NOSE RADOME MMS-420 RADOME COATING
(36375 GRAY)
- ENGINE COMPARTMENT-MMS-425 PRIMER,
MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE)
- GUN COMPARTMENT-MMS-425 PRIMER,
MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE)
- AVIONICS COMPARTMENT MMS-425 PRIMER,
MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE)

INTERIOR SURFACES- MMS-425 PRIMER

X

3 74A950351-2011

CAUTION

DOOR 167L/R MUST BE CLOSED
PRIOR TO OPENING THE ENGINE
ACCESS DOOR 68L/R TO PREVENT
DAMAGE TO ARRESTING HOOK

S

6 74A950359-2003



ST3M455-4L4-1 SCREW
ST3M445C4M1 NUT

T

7 74A950375-2001

ST3M455-4L4-1 SCREW
ST3M445C4M1 NUT



ST3M455-4L4-1 SCREW
ST3M445C4M1 NUT

U

8 74A950375-2003

74A330670-2005 SCREW



74A330670-2005 SCREW

V

9 74A950375-2005

CAUTION

INSTALL FLAP LOCK
BEFORE OPENING DOOR

W

10 74A950371

DATE COMPLETED

MCDONNELL DOUGLAS

EXTERIOR MOLDLINE

MIL-P-23377 LOW IR
(DARK GREEN) PRIMER

MMS-420 POLYURETHANE
ENAMEL

36375 GRAY
36320 GRAY

SPECIFICATIONS

SPECIAL AREAS

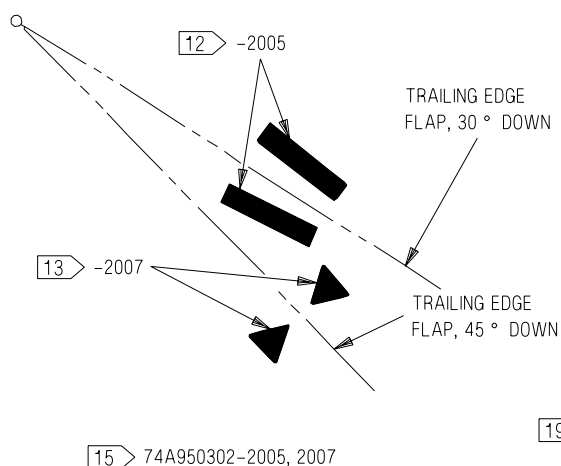
- FOLD AREAS CONTROL SURFACE ENCLOSURES
CUTOUTS ETC SPEEDBRAKE DOOR AND WELL
MIL-P-23377 LOW IR (DARK GREEN) PRIMER
MMS-420 POLYURETHANE ENAMEL (36320) GRAY
- NLG MLG & WHEELS MIL-P-23377 PRIMER
MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE)
- ENGINE AIR INTAKE DUCTS MMS-425 PRIMER
MMS-420 POLYURETHANE ENAMEL (36375) GRAY
- COCKPIT MMS-425 PRIMER MMS-420
POLYURETHANE ENAMEL (36231) GRAY & 37038 BLACK
- DORSAL DECK MMS-425 PRIMER
MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE)
- NOSE RADOME MMS-420 RADOME COATING 36375
GRAY
- ENGINE COMPARTMENT
MMS-425 PRIMER MMS-420 POLYURETHANE ENAMEL
(INSIGNIA WHITE)
- GUN COMPARTMENT
MMS-425 PRIMER MMS-420 POLYURETHANE ENAMEL
(INSIGNIA WHITE)
- AVIONICS COMPARTMENT MMS-425 PRIMER
MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE)

INTERIOR SURFACES- MMS-425 PRIMER



Z
74A950337-2003

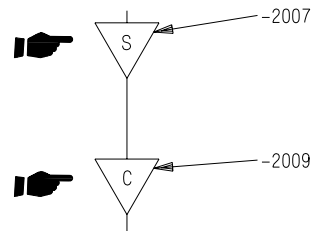
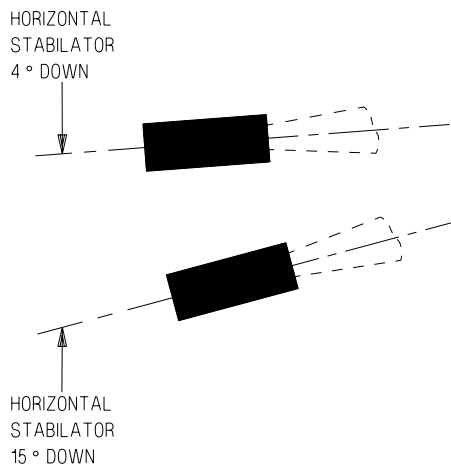
Y
4 74A950351-2013



19 12 14 74A950302-2009

AA

Figure 3. Instructional Markings and Insignia (Sheet 6)



12 15 74A950303-2005

12 20 74A950303-2007, -2009

AB

DATE COMPLETED

MCDONNELL DOUGLAS

EXTERIOR MOLDLINE

MIL-P-23377 TYPE II LOW IR

(DARK GREEN) PRIMER

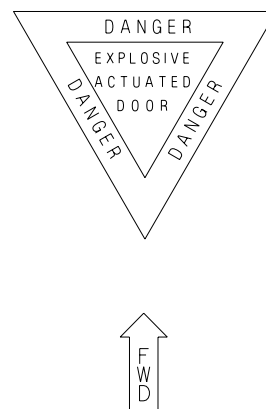
MMS-420 POLYURETHANE

ENAMEL

36375 GRAY

36320 GRAY

| SPECIAL AREAS | SPECIFICATIONS |
|---|--|
| • FOLD AREAS CONTROL SURFACE ENCLOSURES CUTOUTS ETC SPEEDBRAKE DOOR AND WELL- | MIL-P-23377 LOW IR (DARK GREEN) PRIMER |
| | MMS-420 POLYURETHANE ENAMEL (36320 AND 36375 GRAY) |
| • NLG MLG & WHEELS | MIL-P-23377 PRIMER |
| | MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) |
| • ENGINE AIR INTAKE DUCTS- | MMS-425 PRIMER |
| | MMS-420 POLYURETHANE ENAMEL (36375 GRAY) |
| • COCKPIT- | MMS-425 PRIMER |
| | MMS-420 POLYURETHANE ENAMEL (36231 GRAY & 37038 BLACK) |
| • DORSAL DECK- | MMS-425 PRIMER |
| | MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) |
| • NOSE RADOME COATING | (36375 GRAY) |
| • ENGINE COMPARTMENT- | MMS-425 PRIMER |
| | MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) |
| • GUN COMPARTMENT- | MMS-425 PRIMER |
| | MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) |
| • AVIONICS COMPARTMENT- | MMS-425 PRIMER |
| | MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) |
| • INTERIOR MOLDLINE SURFACES | MMS-425 OR |
| • MIL-P-23377 TYPE I | |
| • INTERIOR SURFACES- | MMS-425 PRIMER |



16 74A950378-2001

AC

AD

17 74A950351-2019

Figure 3. Instructional Markings and Insignia (Sheet 7)

| DATE COMPLETED | |
|--|----------------|
| MCDONNELL DOUGLAS | |
| EXTERIOR MOLDLINE MIL-P-85582 TYPE II LOW IR (DARK GREEN) PRIMER MMS-420 HIGH SOLIDS POLYURETHANE ENAMEL 36375 GRAY 36320 GRAY | |
| SPECIAL AREAS | SPECIFICATIONS |
| <ul style="list-style-type: none"> FOLD AREAS CONTROL SURFACE ENCLOSURES CUTOUTS ETC SPEEDBRAKE DOOR AND WELL - MIL-P-85582 LOW IR (DARK GREEN) PRIMER MMS-420 HIGH SOLIDS POLYURETHANE ENAMEL (36320 GRAY) NLG MLG & WHEELS MIL-P-23377 PRIMER MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) ENGINE AIR INTAKE DUCTS-MMS-420 HIGH SOLIDS POLYURETHANE ENAMEL (36375 GRAY) COCKPIT-MMS-425 PRIMER MMS-420 POLYURETHANE ENAMEL (36231 GRAY & 37038 BLACK) DORSAL DECK-MMS-425 PRIMER MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) NOSE RADOME MMS-420 RADOME COATING (36375 GRAY) ENGINE COMPARTMENT-MMS-425 PRIMER MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) GUN COMPARTMENT-MMS-425 PRIMER MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) AVIONICS COMPARTMENT-MMS-425 PRIMER MMS-420 POLYURETHANE ENAMEL (INSIGNIA WHITE) INTERIOR MOLDLINE SURFACES MMS-425 OR MIL-P-23377 TYPE I INTERIOR SURFACES-MMS-425 PRIMER | |

CAUTION

NO HAND HOLD

AF

74A950308-2001

AE

18 74A950351-2023

| DATE COMPLETED |
|---|
| PAINTED BY: MCDONNELL DOUGLAS |
| PRIMER: MIL-P-23377 OR MIL-P-85582 (MOLDLINE: TYPE II OTHER AREAS: TYPE I) |
| TOPCOAT: MIL-C-83286 OR MIL-C-85285 |

AH

22 74A950351-2031

| |
|---|
| PAINTED BY: MCDONNELL DOUGLAS ST. LOUIS |
| DATE: PRIMERS: MIL-P-23377 OR MIL-P-85582 (MOLDLINE: TYPE II OTHER AREAS: TYPE I) |
| TOPCOAT: MIL-C-83286 OR MIL-C-85285 |

AG

21 74A950351-2027

Figure 3. Instructional Markings and Insignia (Sheet 8)



AJ

23 74A950351-2035

LEGEND

- | | |
|---|--|
| 1 164645 AND UP. | 13 EITHER SILK SCREEN APPLIED OR MASK AND PAINT COMMERCIAL GRAY ENAMEL, FED-STD-595 COLOR NO. 35237. |
| 2 161353 THRU 161925. | 14 163131 THRU 163134, 163139 THRU 163142, 163145 THRU 164644. |
| 3 161926 THRU 161929. | 15 163092 THRU 163130, 163135 THRU 163138, 163143, 163144. |
| 4 161930 THRU 163782. | 16 164670 AND UP; ALSO 164627 THRU 164669 AFTER F/A-18 AFC 126. |
| 5 161353 THRU 161933. | 17 F/A-18C 163985 THRU 164262, 164266 THRU 164269. F/A-18D 163986 THRU 164263, 164272. |
| 6 161934 AND UP. | 18 F/A-18C 164264, 164265, 164270 THRU 164950. F/A-18D 164267, 164279 THRU 164945. |
| 7 F/A-18A 161520. | 19 SEE WP 033 00 FOR NEW LOCATION OF SUPERSEDING PARTS. |
| 8 F/A-18A 161521 THRU 161756, 161758, 161759, 161928. F/A-18B 161704 THRU 161924. | 20 163092 AND UP. |
| 9 F/A-18A, F/A-18C 161757, 161760 THRU 161927, 161929 AND UP, F/A-18B, F/A-18D 161932 AND UP. | 21 F/A-18C 164952 THRU 165206. F/A-18D 164947 THRU 164967. |
| 10 161360 AND UP. | 22 F/A-18C 165207 THRU 165403. |
| 11 163092 THRU 164644. | 23 165404 AND UP. |
| 12 SILK SCREEN APPLIED, COMMERCIAL GRAY ENAMEL, FED-STD-595 COLOR NO. 35237. | |

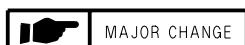


Figure 3. Instructional Markings and Insignia (Sheet 9)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

EMPENNAGE CORROSION PRONE AREAS

Reference Material

| | |
|--|------------------|
| Structure Repair, Aft Fuselage | A1-F18AE-SRM-750 |
| Structure Group Index | WP001 01 |
| Structure Repair, Aft Fuselage | A1-F18AC-SRM-240 |
| Structure Group Index | WP001 01 |
| Aircraft Corrosion Control | A1-F18AC-SRM-500 |
| Corrosion Inspection and Removal | WP005 00 |
| Cleaning | WP006 00 |
| Stripping | WP007 00 |
| Chemical Treatment | WP008 00 |
| Empennage Finish System and Markings | WP039 00 |

Alphabetical Index

| Subject | Page No. |
|--|----------|
| Description | 2 |
| Chemical Treatment | 2 |
| Classification of Critical Items/Areas | 2 |
| Cleaning | 2 |
| Corrosion Damage Evaluation and Limits | 2 |
| Corrosion Damage Repair | 2 |
| Corrosion Inspection | 2 |
| Corrosion Prone Areas | 2 |
| Corrosion Removal | 2 |
| Finish System and Markings | 2 |
| Stripping | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The empennage is made up of vertical stabilizer torque box, rudder, and horizontal stabilator. Structure and skins are aluminum, graphite epoxy, and titanium. Finish system is primer and polyurethane coatings.

3. CORROSION PRONE AREAS.

- a. Dissimilar metal contact.
- b. Water intrusion/entrapment.
- c. Clogging of drainage provisions.
- d. Metal alloy/type and use.
- e. Finish system/protection system damage.

4. Vertical Stabilizer Torque Box. See figure 1.

a. The torque box has graphite epoxy skin over aluminum alloy structure.

b. Water entering this area is dependant upon failure of finish system/protection system.

c. Ribs are 7075-T73511 bar, 7075-T73 forging, 7075-T76 extrusion, 7075-T62 sheet, 7075-T7352 forging, 7075-T7351 plate, 7075-T73 bar, and A356-T61 casting.

d. Spars are 7075-T7351 plate and 7075-T73511 bar.

e. Other structure is 7075-T73511 bar, 7075-T73 forging, 7075-T7351 plate, 7075-T7351 bar and 7075-T62 sheet.

5. Rudder. See figure 2.

a. The rudder has graphite epoxy skins over bonded aluminum honeycomb core.

b. Other structure is 7075-T73 forging, 6061-T6 sheet and 7075-T6 sheet.

6. Horizontal Stabilator. See figure 3 or 4.

a. Structure and skins are aluminum, graphite epoxy, and titanium with bonded aluminum honeycomb core.

b. Other parts of horizontal stabilator is 7075-T6 sheet, A356-T61 casting, 15-15PH CRES, 6061-T6 sheet, 6061-T62 sheet, 7075-T7351 plate, 7075-T76 sheet, and 7075-T73 extrusion.

7. CORROSION INSPECTION. (WP005 00).

8. CLEANING. (WP006 00).

9. STRIPPING. (WP007 00).

10. CORROSION REMOVAL. (WP005 00).

11. CHEMICAL TREATMENT. (WP008 00).

12. FINISH SYSTEM AND MARKINGS. (WP039 00).

13. CLASSIFICATION OF CRITICAL ITEMS/AREAS. (A1-F18AC-SRM-240, WP001 01 or A1-F18AE-SRM, WP001 01).

14. CORROSION DAMAGE EVALUATION AND LIMITS. (A1-F18AC-SRM-240, WP001 01 or A1-F18AE-SRM-750, WP001 01).

15. CORROSION DAMAGE REPAIR. (WP005 00 and A1-F18AC-SRM-240, WP001 01 or A1-F18AE-SRM-750, WP001 01).

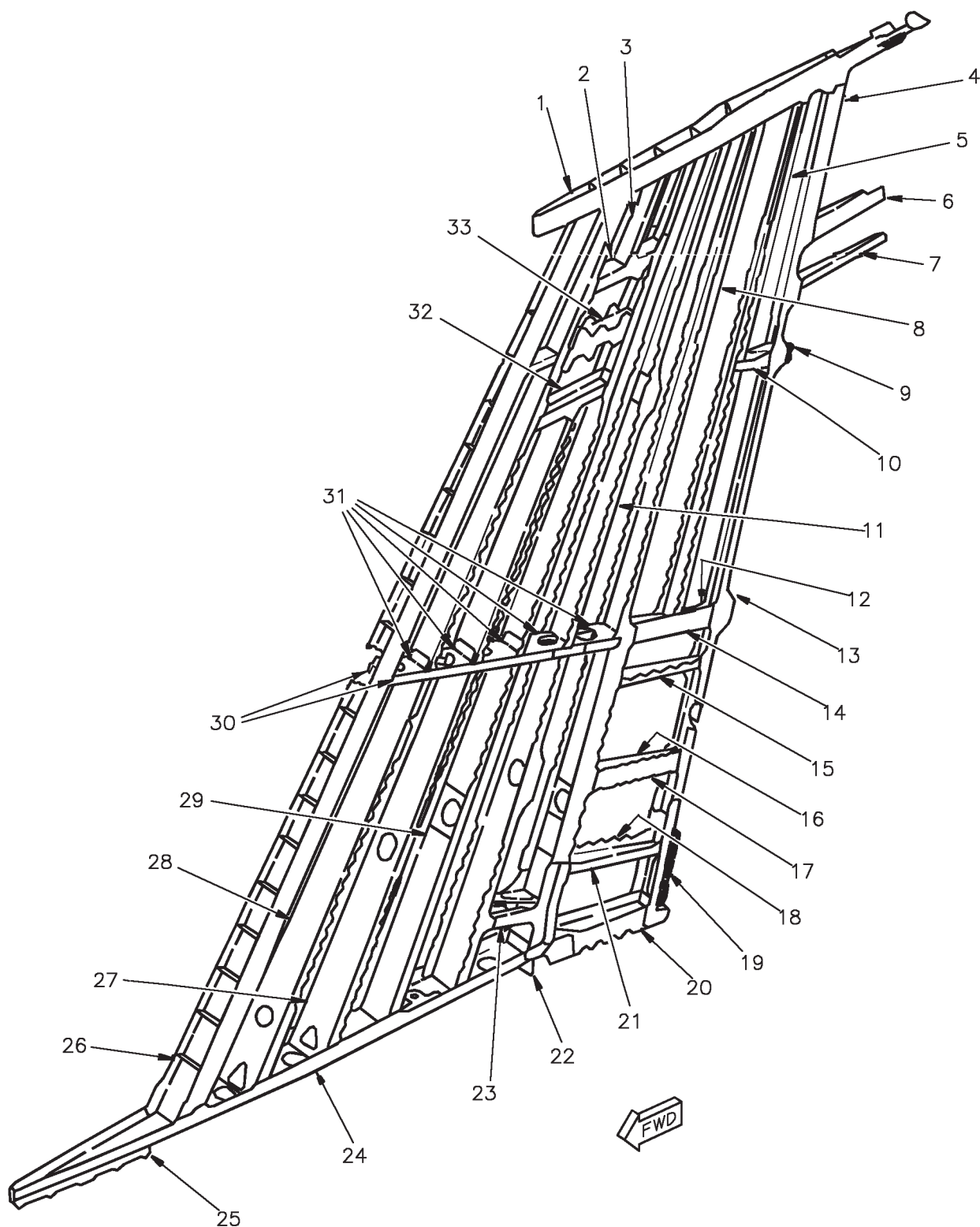


Figure 1. Vertical Stabilizer Torque Box (Sheet 1)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|-----------------|
| 1 | Rib | 7075-T73511 Al Aly, Bar | Pitting |
| 2 | Rib | 7075-T73 Al Aly, Forging | Surface/Pitting |
| 3 | Spar | 7075-T7351 Al Aly, Plate | Pitting |
| 4 | Spar | 7075-T73511 Al Aly, Bar | Pitting |
| 5 | Spar | 7075-T7351 Al Aly, Plate | Pitting |
| 6 | Rib | A356-T61 Al Aly, Casting | Surface/Pitting |
| 7 | Rib | A356-T61 Al Aly, Casting | Surface/Pitting |
| 8 | Spar | 7075-T73511 Al Aly, Bar | Pitting |
| 9 | Hinge | 7075-T73511 Al Aly, Bar | Pitting |
| 10 | Rib | 7075-T73511 Al Aly, Bar | Pitting |
| 11 | Spar | 7075-T73511 Al Aly, Bar | Pitting |
| 12 | Rib | 7075-T76 Al Aly, Extrusion | Pitting |
| 13 | Hinge | 7075-T73 Al Aly, Forging | Surface/Pitting |
| 14 | Rib | 7075-T73 Al Aly, Forging | Surface/Pitting |
| 15 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 16 | Rib | 7075-T62 Al Aly, Sheet | Surface |
| 17 | Plate | 7075-T7351 Al Aly, Plate | Pitting |
| 18 | Rib | 7075-T73511 Al Aly, Bar | Pitting |
| 19 | Hinge | 7075-T73 Al Aly, Forging | Surface/Pitting |
| 20 | Rib | 7075-T73511 Al Aly, Bar | Pitting |
| 21 | Support | 7075-T7351 Al Aly, Bar | Pitting |
| 22 | Plate | 7075-T73 Al Aly, Plate | Pitting |
| 23 | Rib | 7075-T7352 Al Aly, Forging | Surface/Pitting |
| 24 | Rib | 7075-T7351 Al Aly, Plate | Pitting |
| 25 | Angle | 7075-T62 Al Aly, Sheet | Surface |

Figure 1. Vertical Stabilizer Torque Box (Sheet 2)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------|-----------------|
| 26 | Spar | 7075-T73511 Al Aly, Bar | Pitting |
| 27 | Spar | 7075-T7351 Al Aly, Plate | Pitting |
| 28 | Spar | 7075-T7351 Al Aly, Plate | Pitting |
| 29 | Spar | 7075-T7351 Al Aly, Plate | Pitting |
| 30 | Cap | 7075-T62 Al Aly, Sheet | Surface |
| 31 | Web | 7075-T62 Al Aly, Sheet | Surface |
| 32 | Rib | 7075-T73 Al Aly, Forging | Surface/Pitting |
| 33 | Rib | 7075-T73 Al Aly, Bar | Pitting |

Figure 1. Vertical Stabilizer Torque Box (Sheet 3)

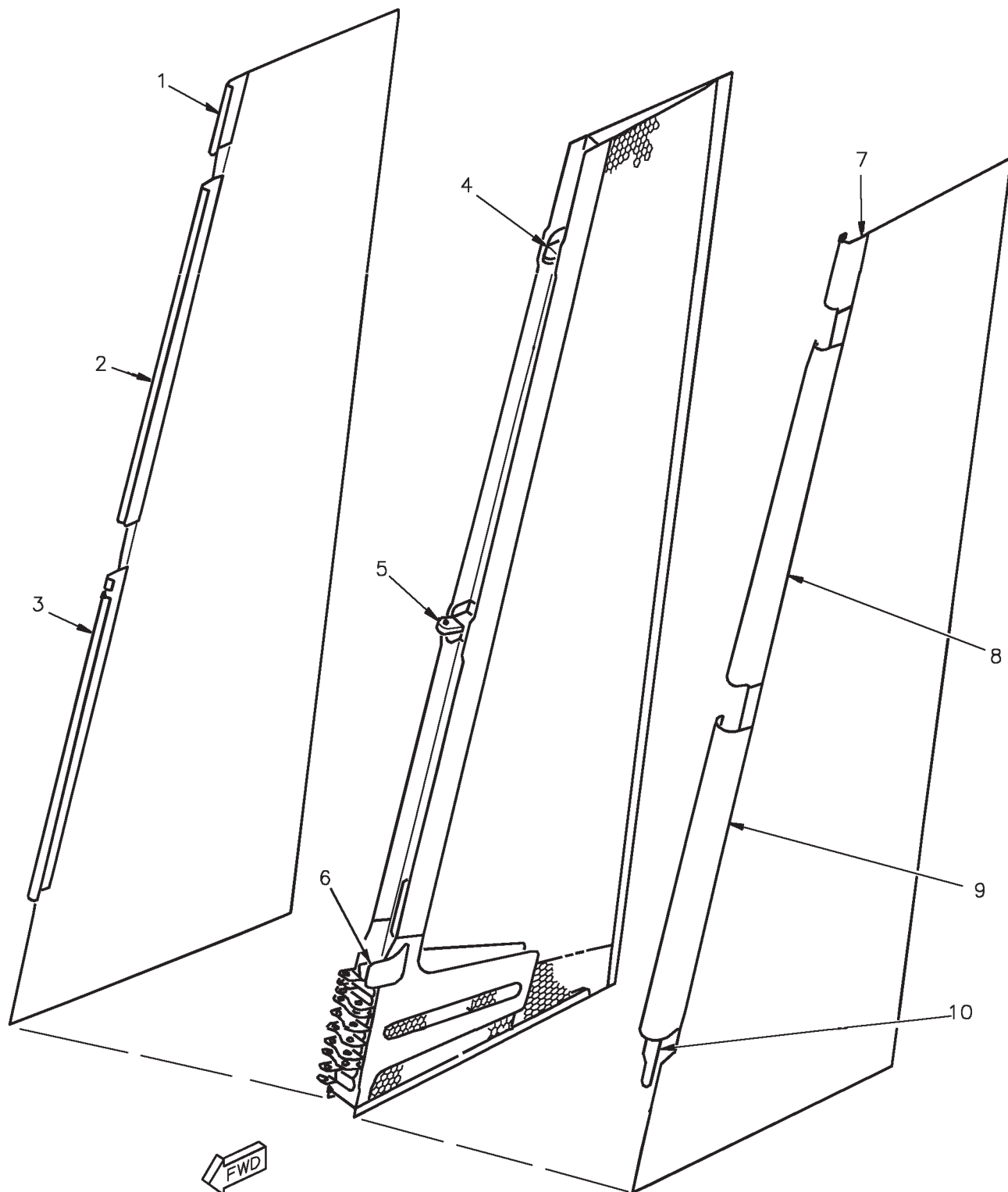


Figure 2. Rudder (Sheet 1)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|--------------------------|-----------------|
| 1 | Fairing | 6061-T6 Al Aly, Sheet | Pitting |
| 2 | Fairing | 6061-T6 Al Aly, Sheet | Pitting |
| 3 | Fairing | 6061-T6 Al Aly, Sheet | Pitting |
| 4 | Hinge, Upper | 7075-T73 Al Aly, Forging | Surface/Pitting |
| 5 | Hinge, Center | 7075-T73 Al Aly, Forging | Pitting |
| 6 | Fairing Support | 7075-T6 Al Aly, Sheet | Surface |
| 7 | Fairing | 6061-T6 Al Aly, Sheet | Pitting |
| 8 | Fairing | 6061-T6 Al Aly, Sheet | Pitting |
| 9 | Fairing | 6061-T6 Al Aly, Sheet | Pitting |
| 10 | Retainer | 6061-T62 Al Aly, Sheet | Pitting |

Figure 2. Rudder (Sheet 2)

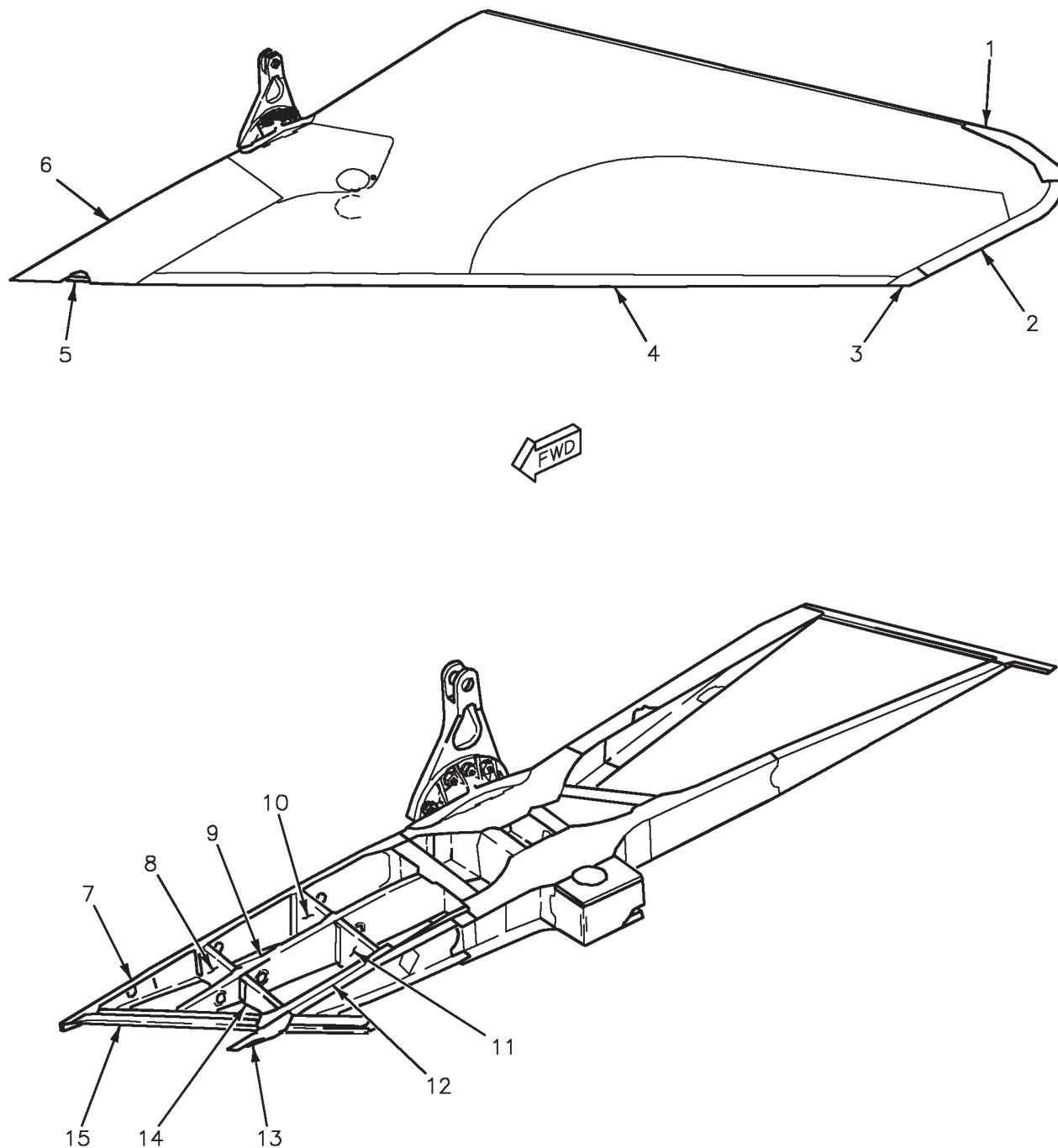


Figure 3. Horizontal Stabilizer, 74A210002 (Sheet 1)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|---------------------------|-----------------|
| 1 | Aft Tip | 6061-T6 Al Aly, Sheet | Pitting |
| 2 | Center Tip | 6061-T62 Al Aly, Sheet | Pitting |
| 3 | Forward Tip | A356-T61 Al Aly, Casting | Pitting |
| 4 | Leading Edge | 7075-T73511 Al Aly, Plate | Pitting |
| 5 | Strip | 7075-T6 Alclad, Sheet | Surface |
| 6 | Skin | 7075-T76 Alclad, Sheet | Surface |
| 7 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 8 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 9 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 10 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 11 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 12 | Rib | 7075-T6 Alclad, Sheet | Surface |
| 13 | Rib | A356-T61, Al Aly, Casting | Surface/Pitting |
| 14 | Intercostal | 7075-T6 Alclad, Sheet | Surface |
| 15 | Spar | 7075-T6 Alclad, Sheet | Surface |

Figure 3. Horizontal Stabilizer, 74A210002 (Sheet 2)

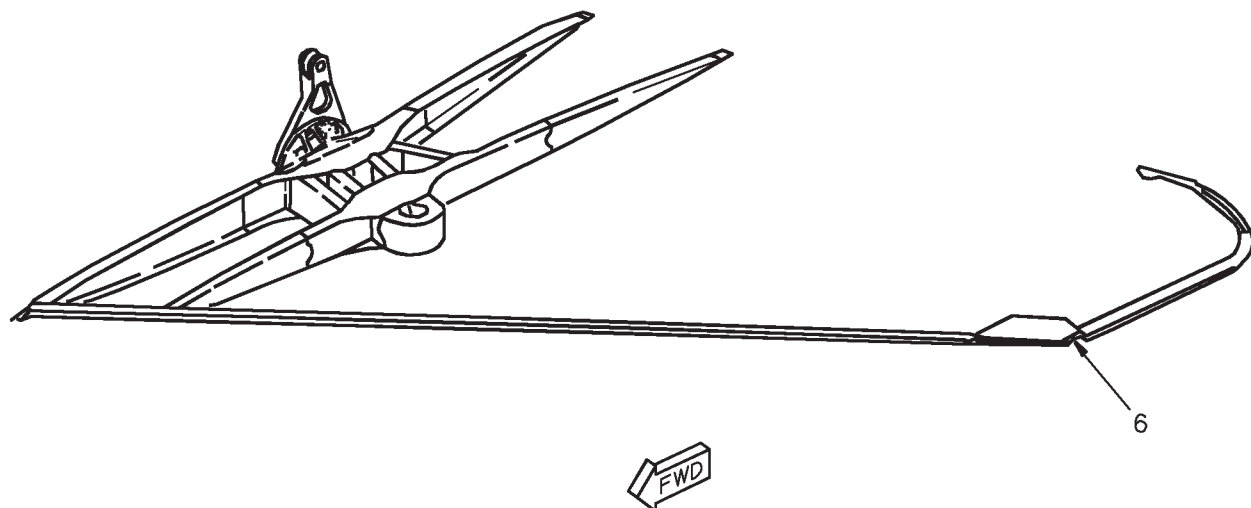
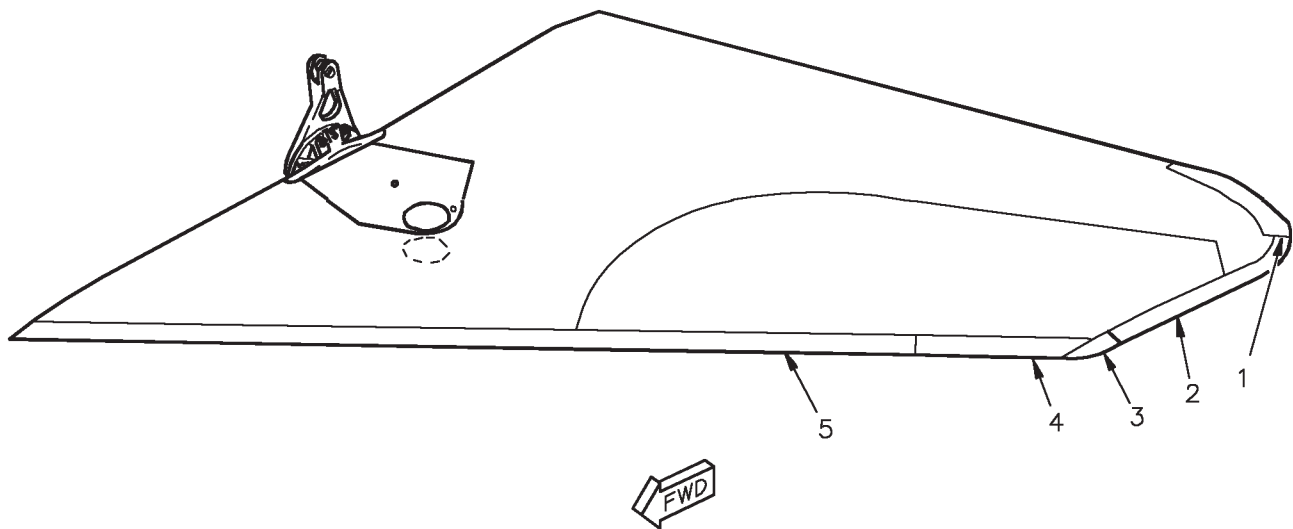


Figure 4. Horizontal Stabilizer, 74A210005 (Sheet 1)

| IDX NO. | CORROSION PRONE AREA | MATERIAL | TYPE CORROSION |
|---------|----------------------|----------------------------|----------------|
| 1 | Aft Tip | 6061-T6 Al Aly, Sheet | Pitting |
| 2 | Center Tip | 6061-T62 Al Aly, Sheet | Pitting |
| 3 | Forward Tip | A356-T61 Al Aly, Casting | Pitting |
| 4 | Leading Edge | 7075-T73 Al Aly, Extrusion | Pitting |
| 5 | Leading Edge | 7075-T73 Al Aly, Extrusion | Pitting |
| 6 | Rib Ballast | 15-15PH Cres, Plate | — |

Figure 4. Horizontal Stabilizer, 74A210005 (Sheet 2)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

EMPENNAGE SEALING

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Form In Place Sealing..... | WP010 00 |
| Structure Repair, General Information | A1-F18AC-SRM-200 |
| Adhesive, Cement, and Sealant; Preparation and Application..... | WP011 00 |

Alphabetical Index

| Subject | Page No. |
|--------------------|----------|
| Introduction | 1 |
| Sealing..... | 1 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

graphite epoxy structure or form in place seals are used.

2. Exterior sealing on the empennage, vertical stabilizer and horizontal stabilator, is for corrosion control. Sealing prevents moisture entry, dissimilar metal contact, and provides a barrier between structure, skin, and elements.

a. Removable covers/doors or access panels on mold line surfaces are sealed with form in place seals.

3. **SEALING.** Use MIL-S-83430, class B-4 sealing compound (WP010 00 and A1-F18AC-SRM-200, WP011 00). Use class B for fay surface, form in place, butt joint, and fastener sealing. MIL-S-8802 or MIL-S-81733 is the alternate except when

Fay surface and butt joint sealing may be done simultaneously by being sure sealant squeeze out from the fay surface fills the butt joint.

NOTE

b. The periphery of all external permanent skins, structure, components, or parts are fay surface sealed. This includes items attached with removable fasteners and do not require removal for scheduled maintenance. The below listed assemblies shall not be fay surface sealed to mating structure because of possible damage to either the assembly or to graphite epoxy skins during unscheduled removal:

(1) Horizontal stabilator leading edge assembly.

(2) Vertical stabilizer fin tip assembly.

(3) Vertical stabilizer leading edge assembly.

(4) Vertical stabilizer fixed trailing edge assembly.

c. The periphery of all external permanent skins, structure, components, or parts are butt joint or fillet sealed, this includes step b, substeps (1) through (4) above.

d. All permanent fasteners except aluminum rivets, see step e below, installed in mold line and other exterior categorized surfaces are wet installed with sealing compound.

e. All aluminum rivets in mold line surfaces and exterior categorized areas are installed wet with primer or sealant, except fast rivets, which are wet installed with primer.

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

EMPENNAGE FINISH SYSTEM AND MARKINGS

Reference Material

| | |
|---------------------------------|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |

Alphabetical Index

| Subject | Page No. |
|----------------------------|----------|
| Description | 1 |
| Aircraft Refinishing | 3 |
| Finish System | 2 |
| Markings..... | 3 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The empennage assemblies are: vertical stabilizer, rudder, and horizontal stabilator. All are bonded 5056 aluminum honeycomb assemblies with titanium or fiberglass structure. Skin enclosing honeycomb core is graphite epoxy laminate.

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

Support Equipment Required

None

MIL-P-23377 TY1
MIL-P-85582,
TY1CL1 or CL2

Primer
Primer

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|------------------------|--|
| MIL-P-23377, TY2 | Primer |
| MIL-P-85582, TY2CL1 | Primer |
| MIL-C-83286 | Aliphatic Polyurethane Enamel |
| MIL-C-85285, TY1 | Coating, Polyurethane, High Solids |

3. **FINISH SYSTEM.** See figure 1.

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

b. One coat MIL-P-23377, Type 2, Class 1 primer on mold line surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.

(2) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.

(3) Gray, FED-STD-595 color no. 36320, aliphatic polyurethane enamel.

NOTE

It is optional to apply polyurethane tape to leading edges of vertical stabilizer and horizontal stabilator. Refer to polyurethane tape application procedures (WP012 00).

d. Apply four additional coats of applicable color aliphatic polyurethane enamel to leading edges of vertical stabilizer and horizontal stabilator.

4. **MARKINGS.** See figure 2.

a. Markings are silk screen applied using contrasting commercial gray enamel. Use table 1 to determine applicable marking color number.

5. **AIRCRAFT REFINISHING.** On 161353 THRU 161925, if complete aircraft requires refinishing, use finish system color diagram shown on figure 1 for 161926 THRU 163175.

Table 1. Marking Color Number

| Finish System Color Number | Marking Color Number |
|---|--|
| <div>3</div> Gray, FED-STD-595 color no. 36320 <div>4</div> Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36375 |
| <div>1</div> Gray, FED-STD-595 color no. 36375 <div>2</div> Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36320 |
| Gray, FED-STD-595 color no. 36495 | Gray, FED-STD-595 color no. 36375 |
| LEGEND <div>1</div> 161353 THRU 161925. <div>2</div> 161926 AND UP. <div>3</div> F/A-18A 161926 THRU 161929. <div>4</div> 161930 AND UP. | |

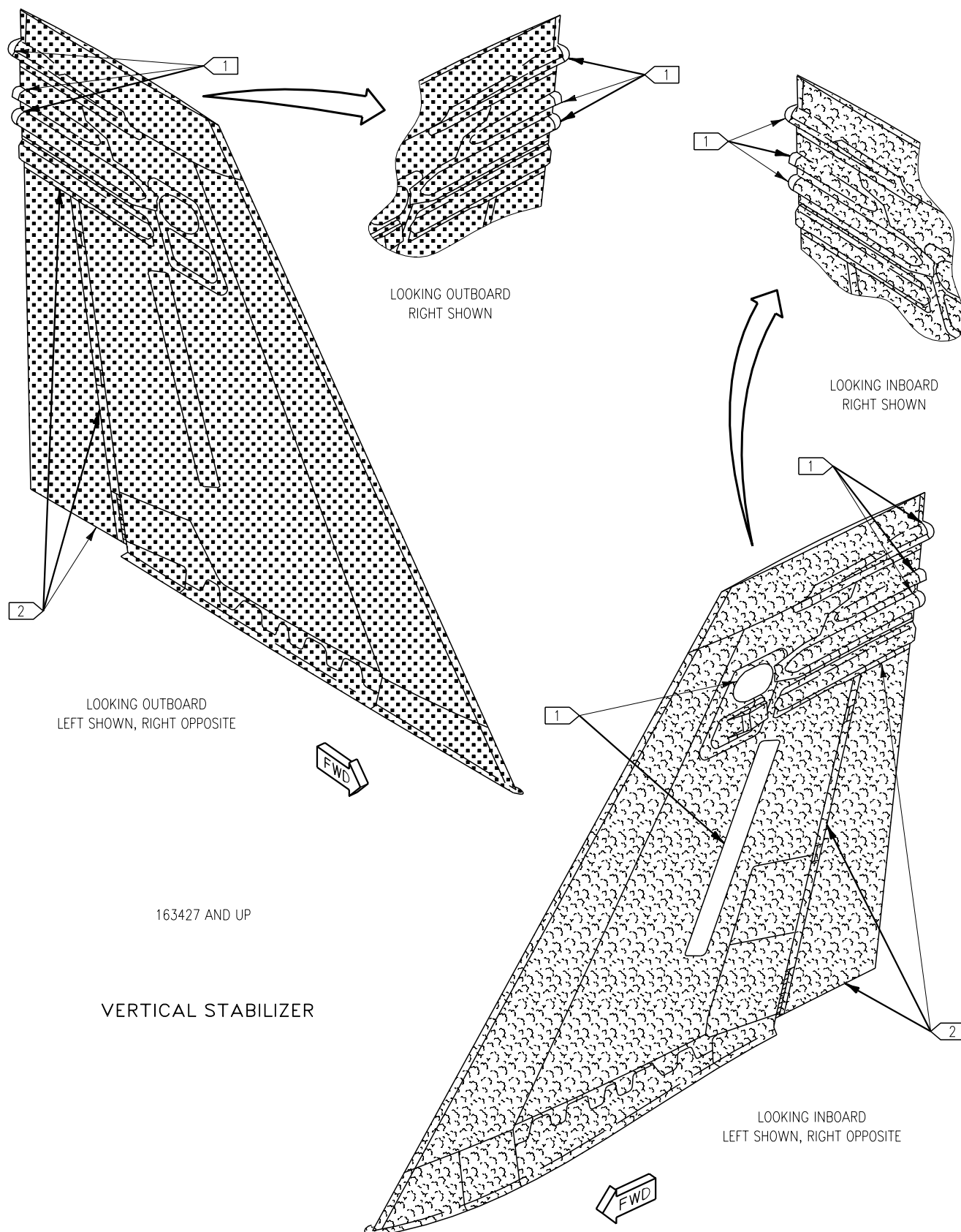
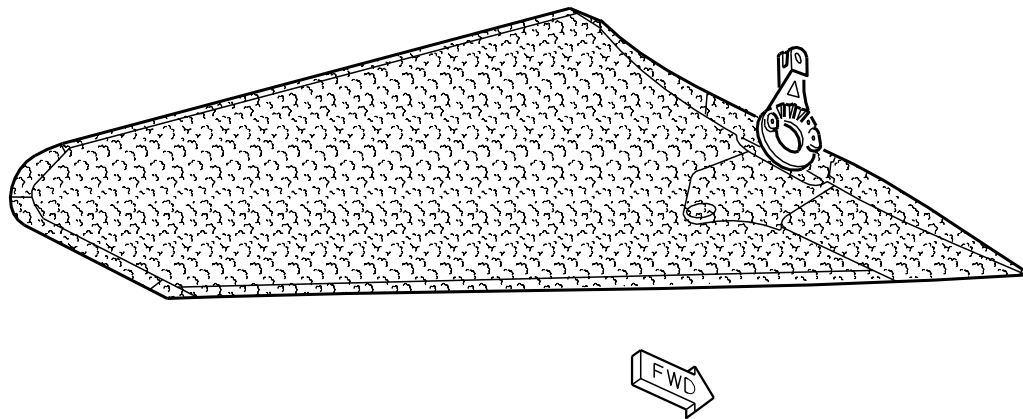
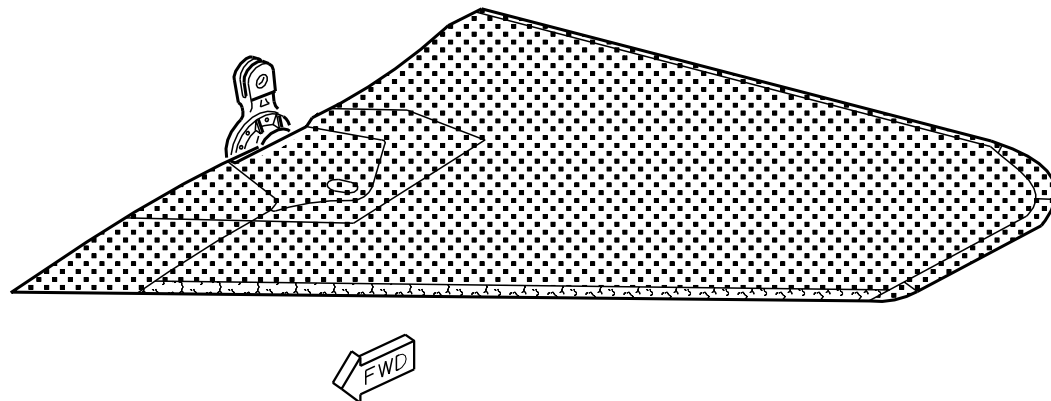


Figure 1. Finish System (Sheet 1)



161926 AND UP

HORIZONTAL STABILATOR

Figure 1. Finish System (Sheet 2)

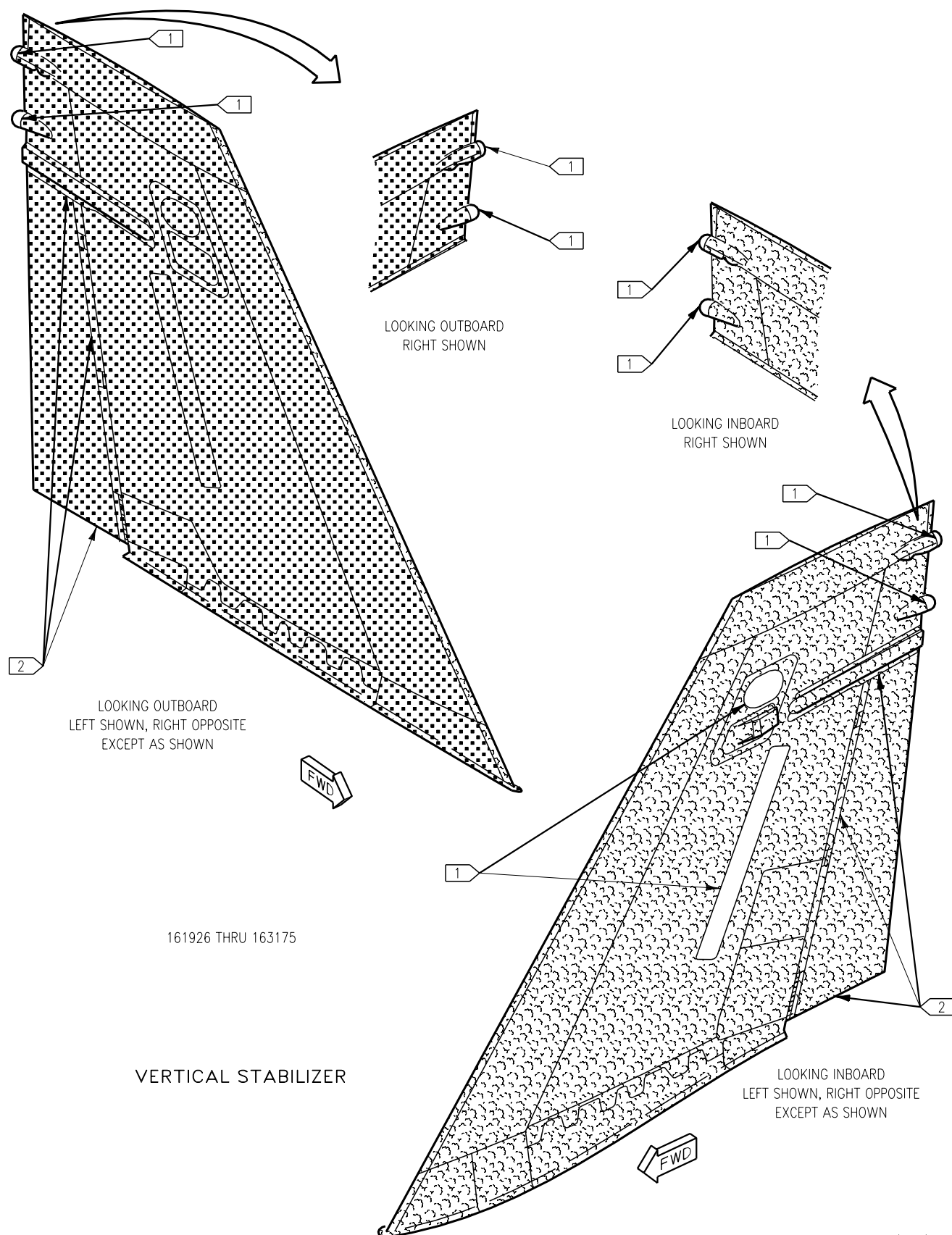


Figure 1. Finish System (Sheet 3)

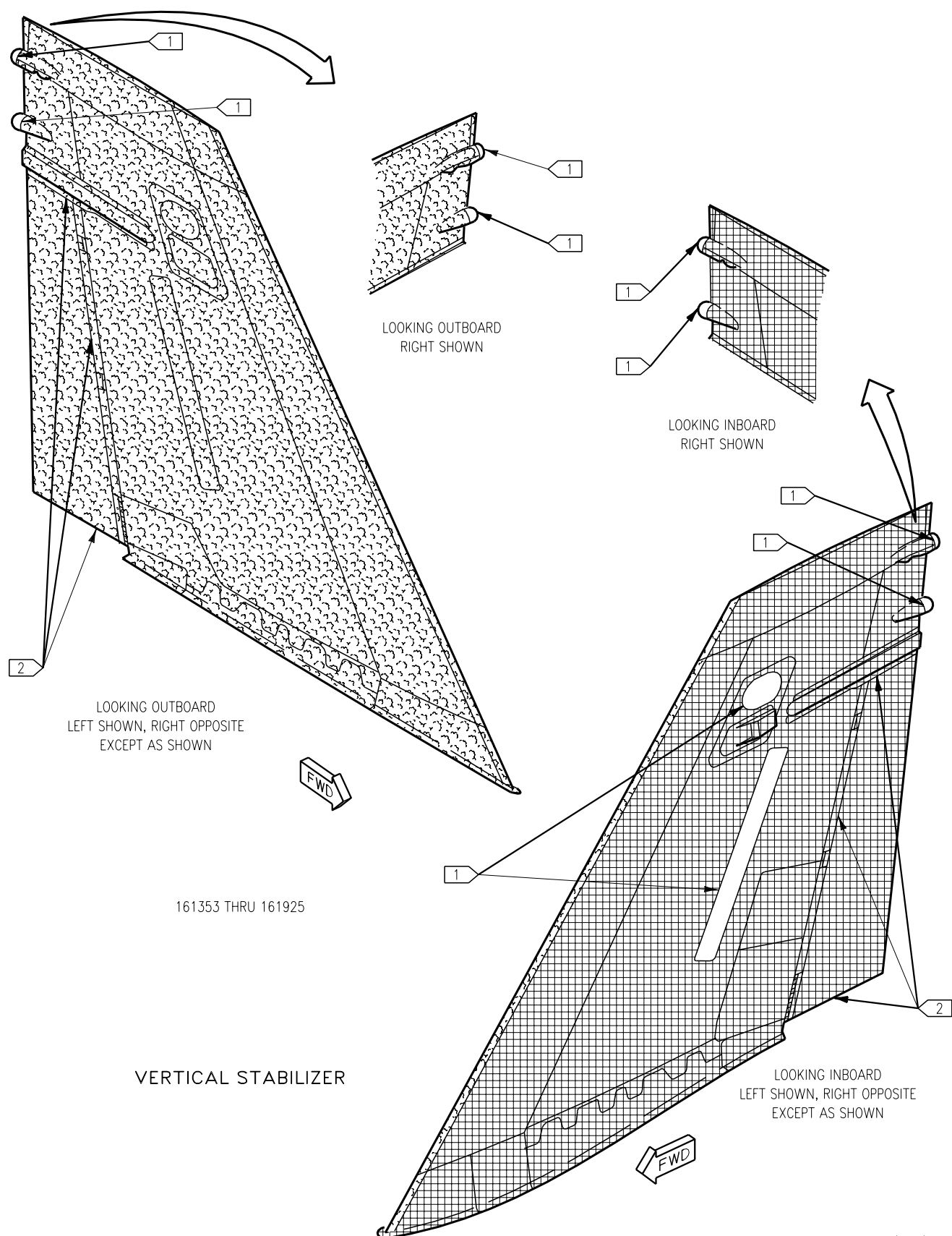
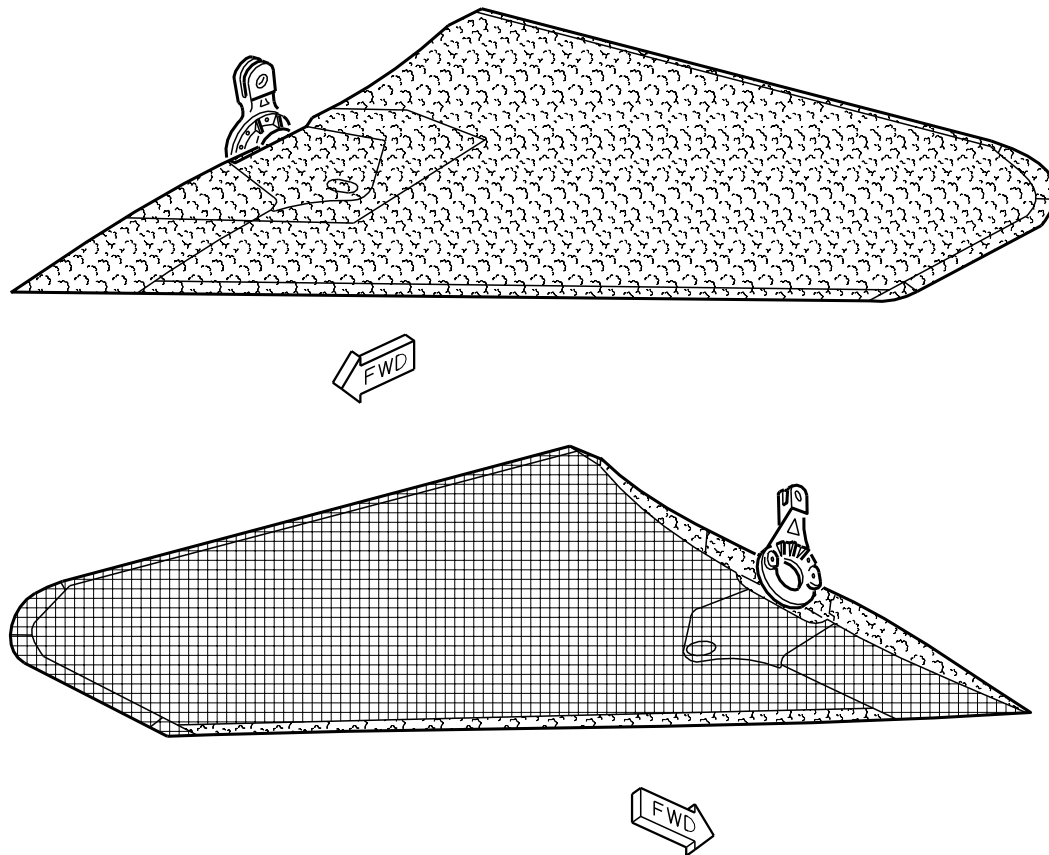


Figure 1. Finish System (Sheet 4)



161353 THRU 161925

HORIZONTAL STABILATOR

LEGEND



GRAY, FED-STD-595 COLOR NO. 36320
ALIPHATIC POLYURETHANE ENAMEL.



GRAY, FED-STD-595 COLOR NO. 36375
ALIPHATIC POLYURETHANE ENAMEL.



GRAY, FED-STD-595 COLOR NO. 36495
ALIPHATIC POLYURETHANE ENAMEL.



DO NOT PAINT.



GRAY, FED-STD-595 COLOR NO. 36375, ALIPHATIC
POLYURETHANE ENAMEL, ON CUTOUT AREAS IN
VERTICAL STABILIZER AND MATING ENCLOSURE
AREAS OF RUDDER.

Figure 1. Finish System (Sheet 5)

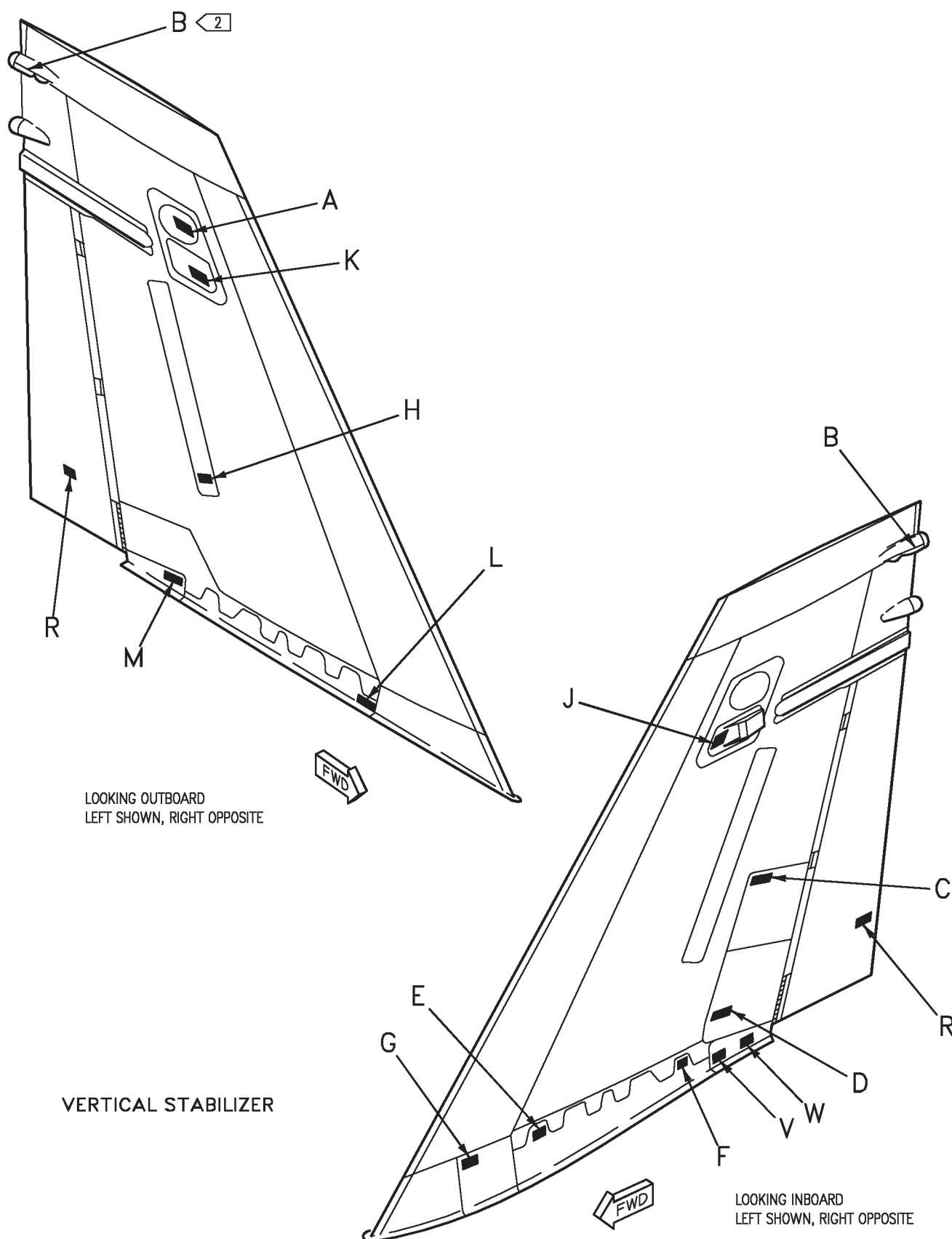
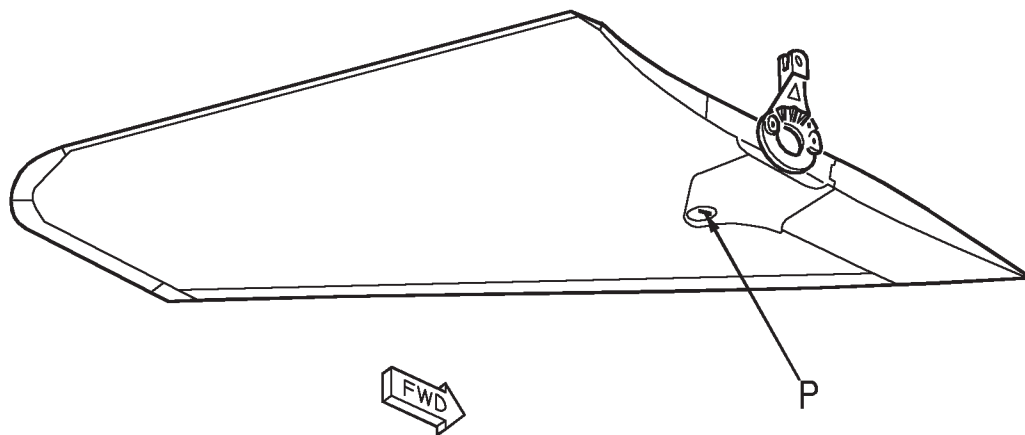
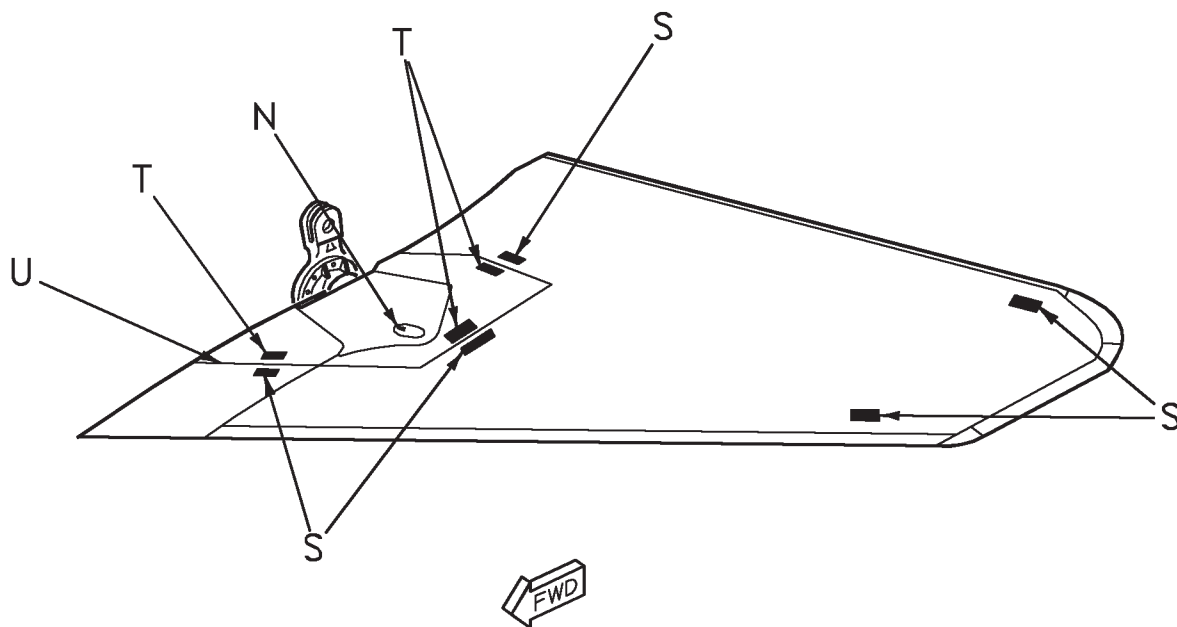
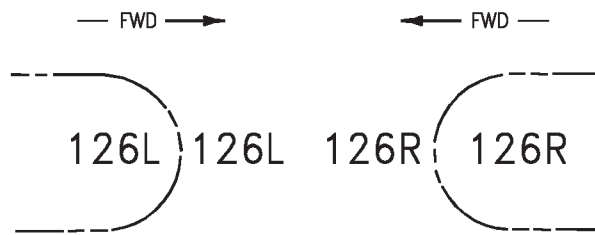


Figure 2. Door and Instructional Markings (Sheet 1)



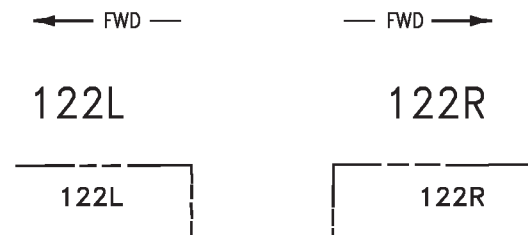
HORIZONTAL STABILATOR

Figure 2. Door and Instructional Markings (Sheet 2)



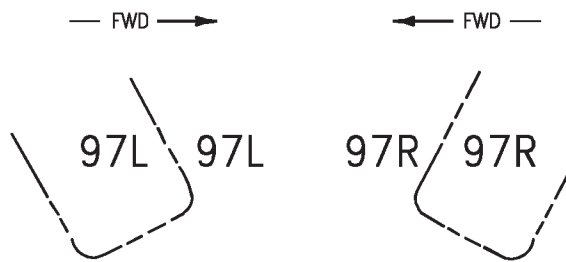
A

74A950126



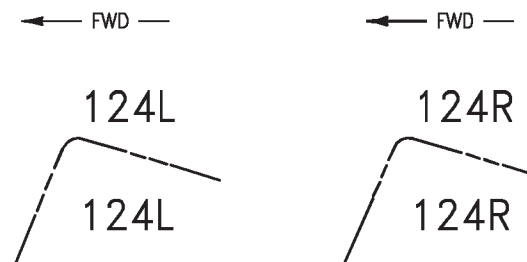
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74A950122



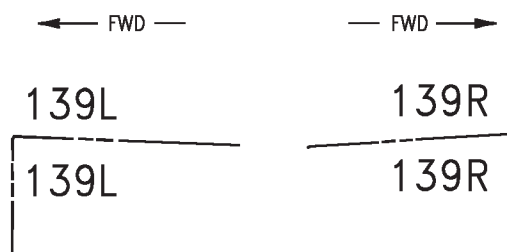
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74A950097



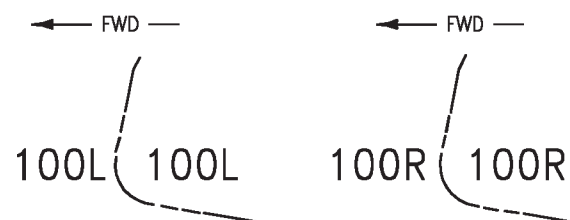
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74A950124



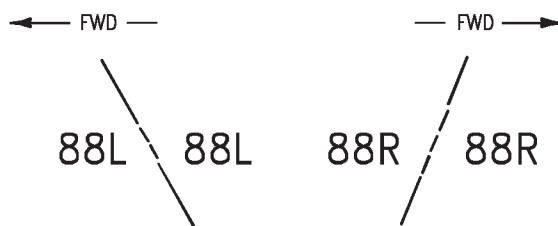
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74A950139



D

74A950100



3 F

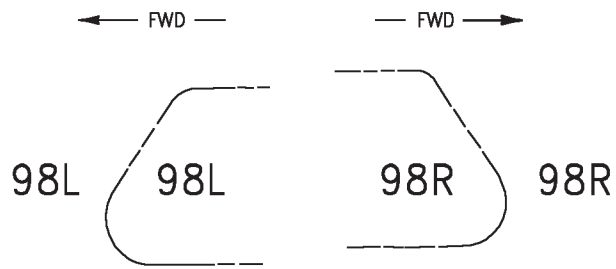
74A950088-2001,-2002,-2003,-2004



4 E

74A950088-2005,-2006

Figure 2. Door and Instructional Markings (Sheet 3)

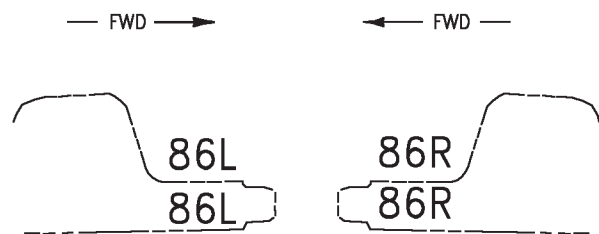


J
74A950098



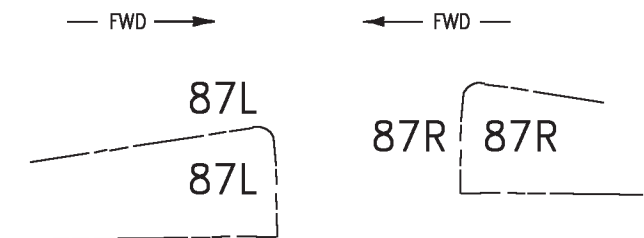
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NO STEP

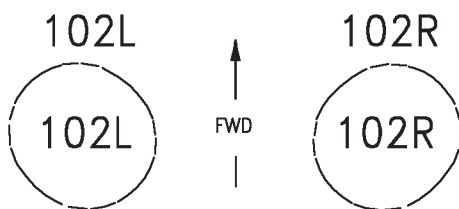


L
74A950086

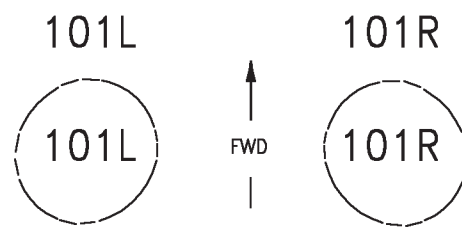
NO PUSH



M
74A950087

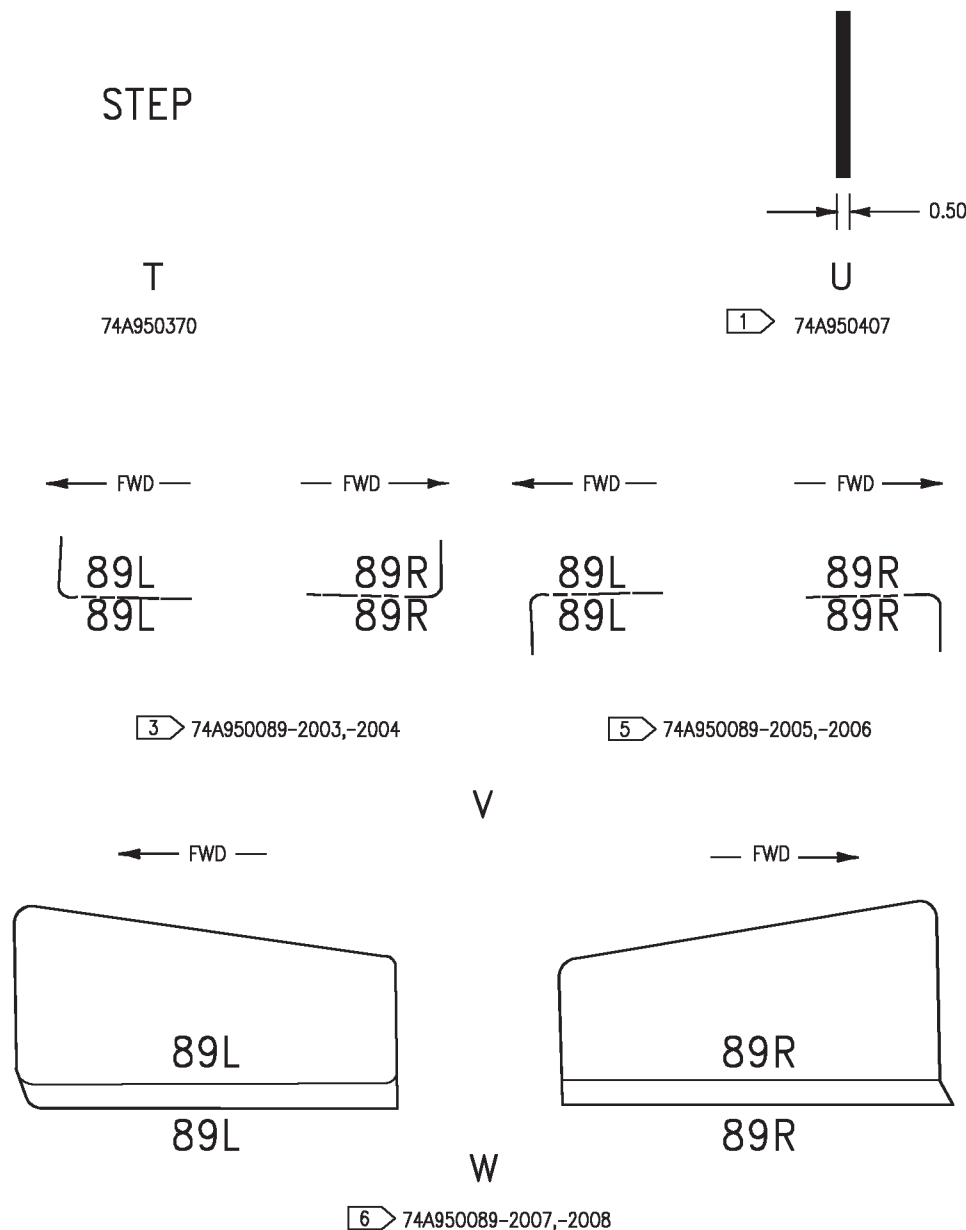


P
74A950102



N
74A950101

Figure 2. Door and Instructional Markings (Sheet 4)



LEGEND

- 1 GRAY, FED-STD-595 COLOR NO. 35237, ALIPHATIC POLYURETHANE ENAMEL, 161353 THRU 161929;
GRAY, FED-STD-595 COLOR NO. 36375, ALIPHATIC POLYURETHANE ENAMEL, 161930 AND UP.
- 2 163480 AND UP.
- 3 161353 THRU 163994.
- 4 163995 AND UP.
- 5 163995 THRU 164034.
- 6 164035 AND UP.

Figure 2. Door and Instructional Markings (Sheet 5)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

LANDING GEAR, ARRESTING HOOK, AND LAUNCH BAR, FINISH SYSTEM AND MARKINGS

This WP supersedes WP042 00, dated 1 May 1998.

Reference Material

| | |
|---|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Forward Fuselage Main Structure Assembly Finish System and Markings.... | WP024 00 |
| Aft Center Fuselage Finish System and Markings | WP033 00 |

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| Aircraft Refinishing | 3 |
| Finish System | 2 |
| Markings..... | 3 |

Record of Applicable Technical Directives

| Type/ Number | Date | Title and ECP No. | Date Incorp. | Remarks |
|--------------------|------|--|--------------|---------|
| F/A-18 AYC 1111 | — | Launch Bar Paint Marking Modification (RAMEC NORIS-06-97) | 1 May 98 | — |

1. DESCRIPTION.

2. The landing gear is made up of doors, fairing, wells, landing gear, wheels, brakes, launch bar, arresting hook, and hydraulic, mechanical/electrical components. Material used is steel, aluminum, and graphite epoxy.

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

Support Equipment Required

None

MIL-P-23377 TY1
MIL-P-85582,
TY1CL1 or CL2
MIL-P-23377, TY2
MIL-P-85582,
TY2CL1

Primer
Primer
Primer
Primer

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

| | |
|------------------|--|
| MIL-C-83286 | Aliphatic Polyurethane Enamel |
| MIL-C-85285, TY1 | Coating, Polyurethane, High Solids |
| 824X001 | Antichafe Compound Base, Red, FED-STD-595 Color No. 11136 |
| 910X377 | Antichafe Compound, Curing Solution |

3. FINISH SYSTEM. See figure 1.**WARNING**

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces of landing gear doors, fairing, and wells. For primer preparation and application (WP011 00).

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

b. One coat MIL-P-23377, Type 2, Class 1 primer on mold line surfaces of landing gear doors, launch bar, wheels, brakes, arresting hook, and hydraulic, mechanical/electrical components. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.

(2) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.

(3) Gray, FED-STD-595 color no. 36320, aliphatic polyurethane enamel.

(4) White, FED-STD-595 color no. 17925, aliphatic polyurethane enamel.

(5) Flat Black, FED-STD-595 color no. 37038, aliphatic polyurethane enamel.

WARNING

Antichafe coating is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.









d. Two coats red, FED-STD-595 color no 11136, antichafe coating applied to periphery of interior surfaces of landing gear doors and fairing. For

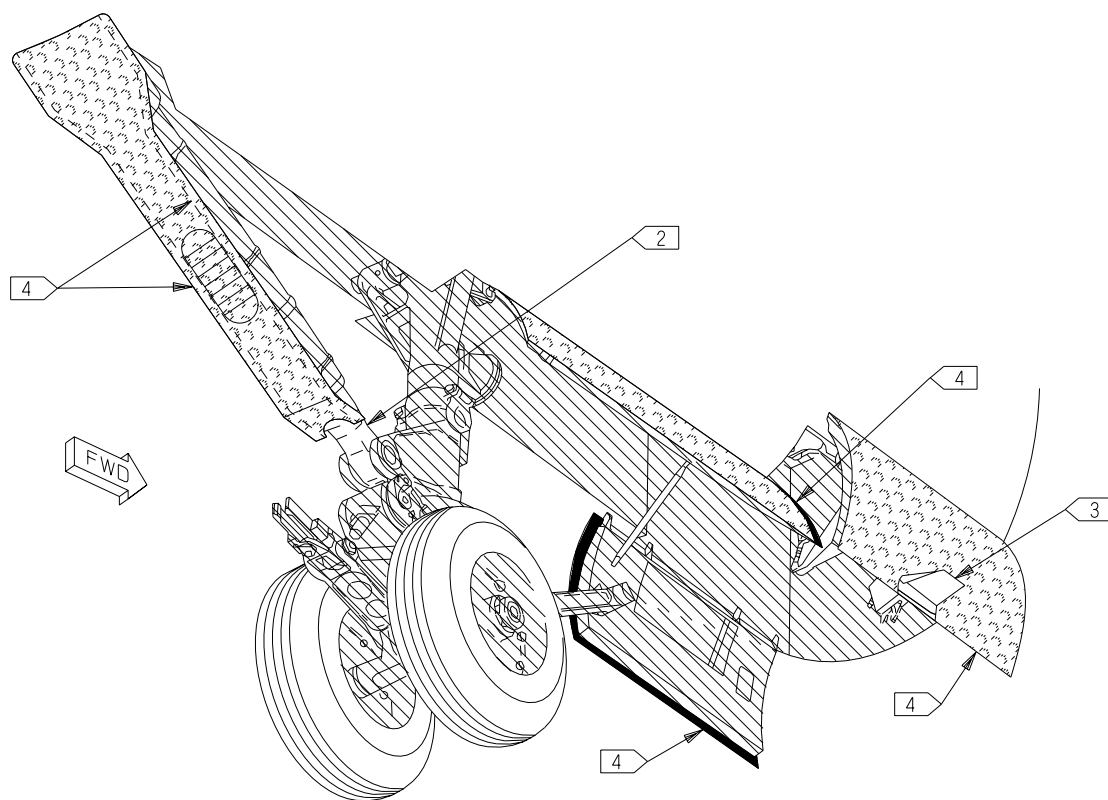
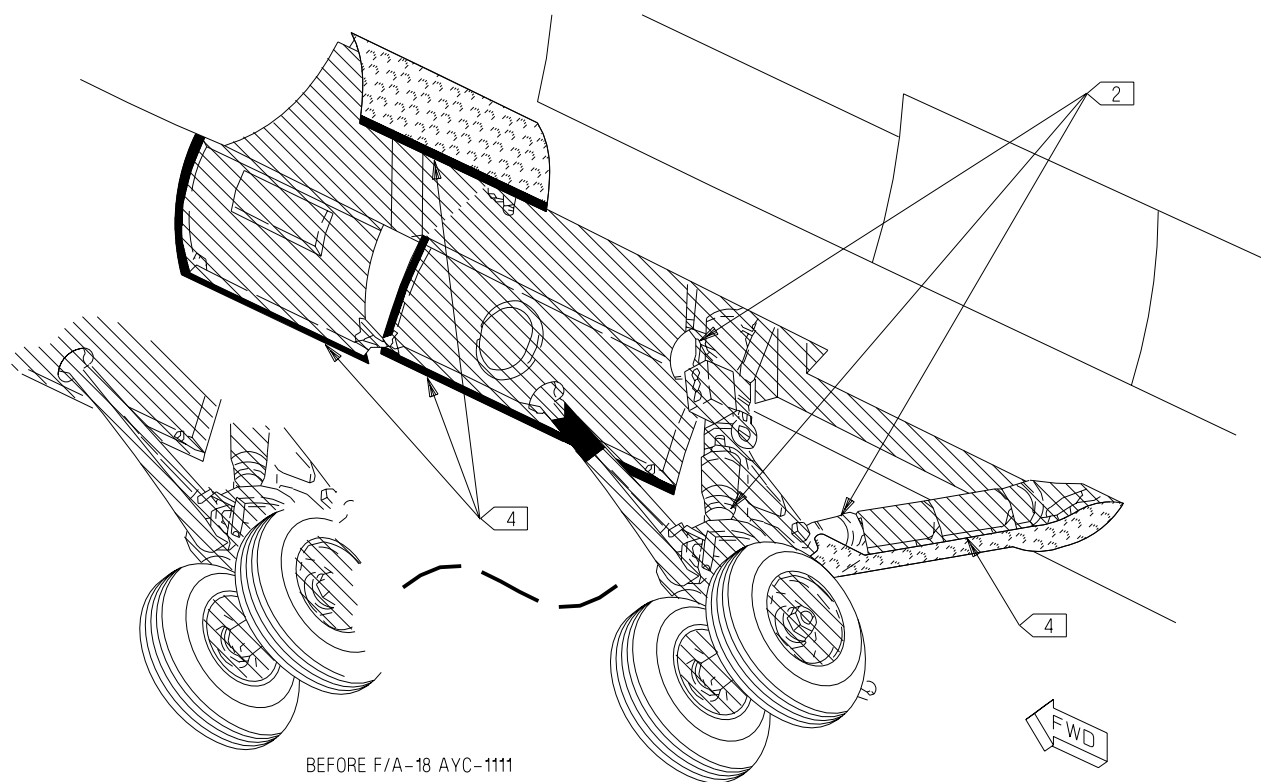
antichafe coating preparation and application (WP012 00).

4. **MARKINGS.** Markings on wheel well doors (WP024 00 and WP033 00).

5. **AIRCRAFT REFINISHING.** On 161353 THRU 161925, if complete aircraft requires refinishing, use finish system color diagram shown on figure 1 for 161926 THRU 163175.

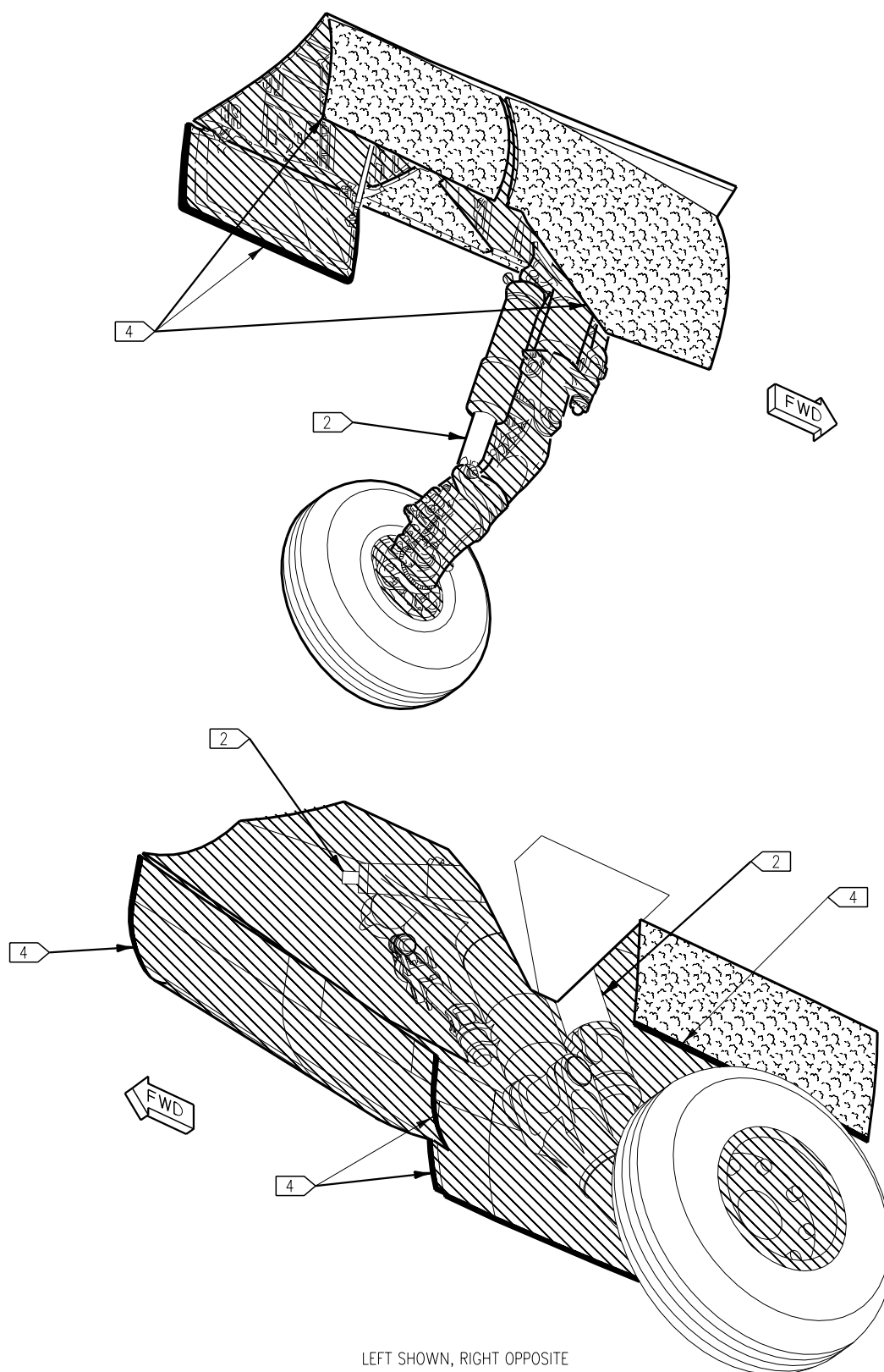
Table 1. Marking Color Number

| Finish System Color Number | | Marking Color Number |
|---|-----------------------------------|--|
|  | Gray, FED-STD-595 color no. 36320 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36375 |
|  | Gray, FED-STD-595 color no. 36320 | |
|  | Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 35237 Gray, FED-STD-595 color no. 36320 |
|  | Gray, FED-STD-595 color no. 36375 | |
| Gray, FED-STD-595 color no. 36495 | | Gray, FED-STD-595 color no. 36375 |
| LEGEND | | |
|  | 161353 THRU 161925. | |
|  | 161926 AND UP. | |
|  | F/A-18A 161926 THRU 161929. | |
|  | 161930 AND UP. | |



NOSE LANDING GEAR

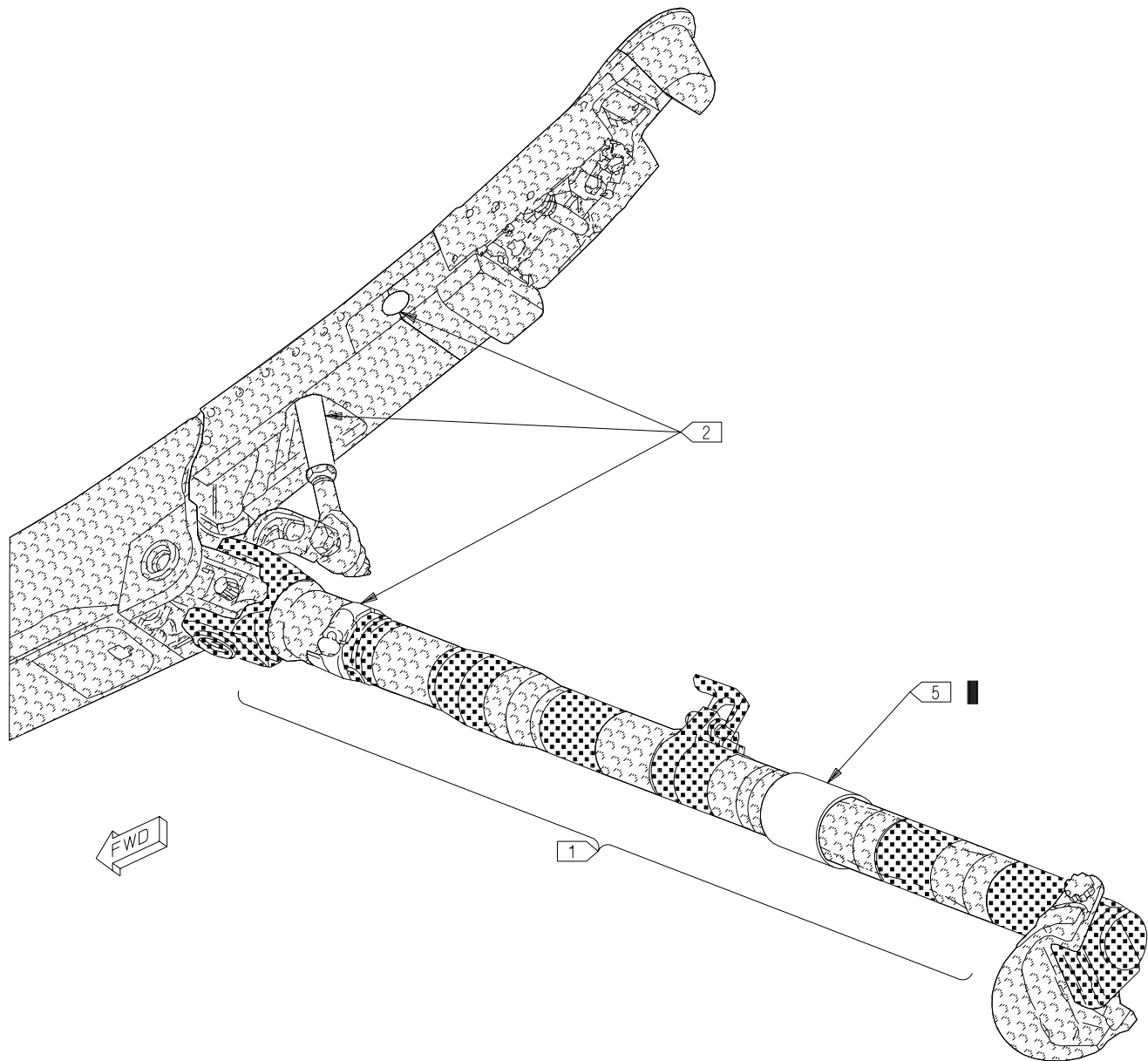
Figure 1. Finish System (Sheet 1)



LEFT SHOWN, RIGHT OPPOSITE
161926 AND UP

MAIN LANDING GEAR

Figure 1. Finish System (Sheet 2)



161926 AND UP

ARRESTING HOOK

Figure 1. Finish System (Sheet 3)

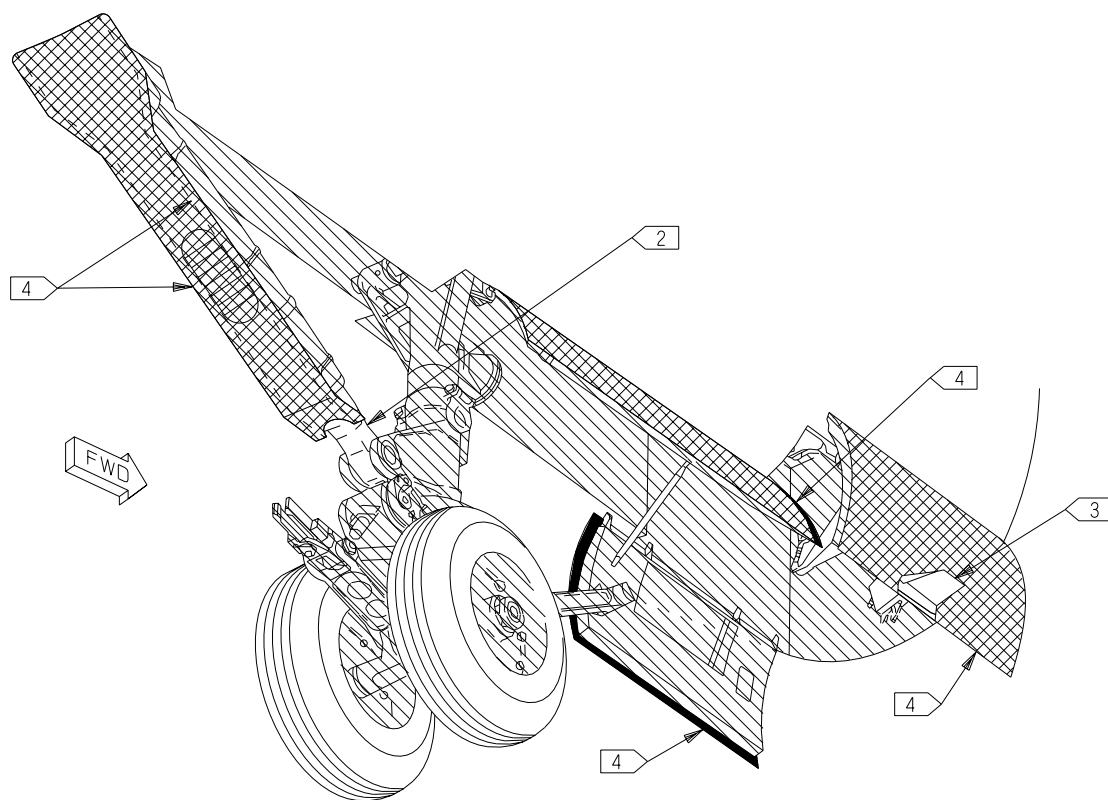
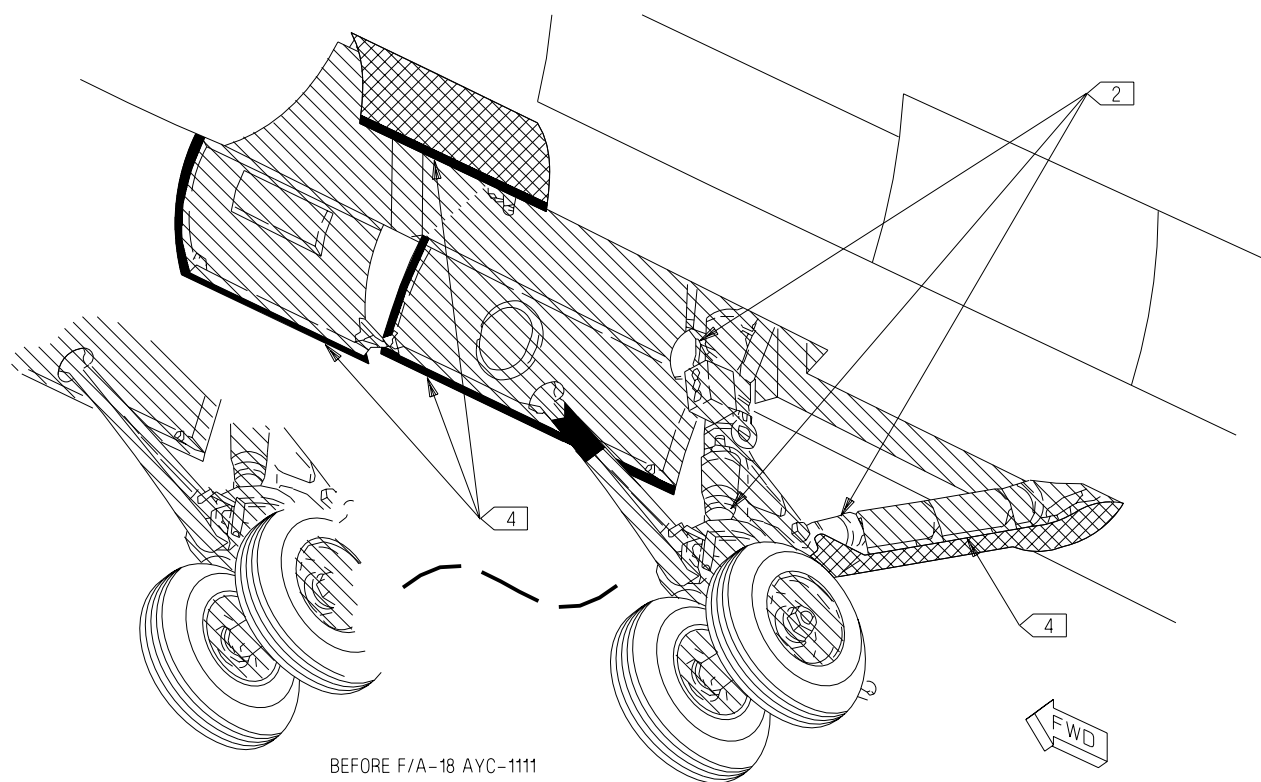
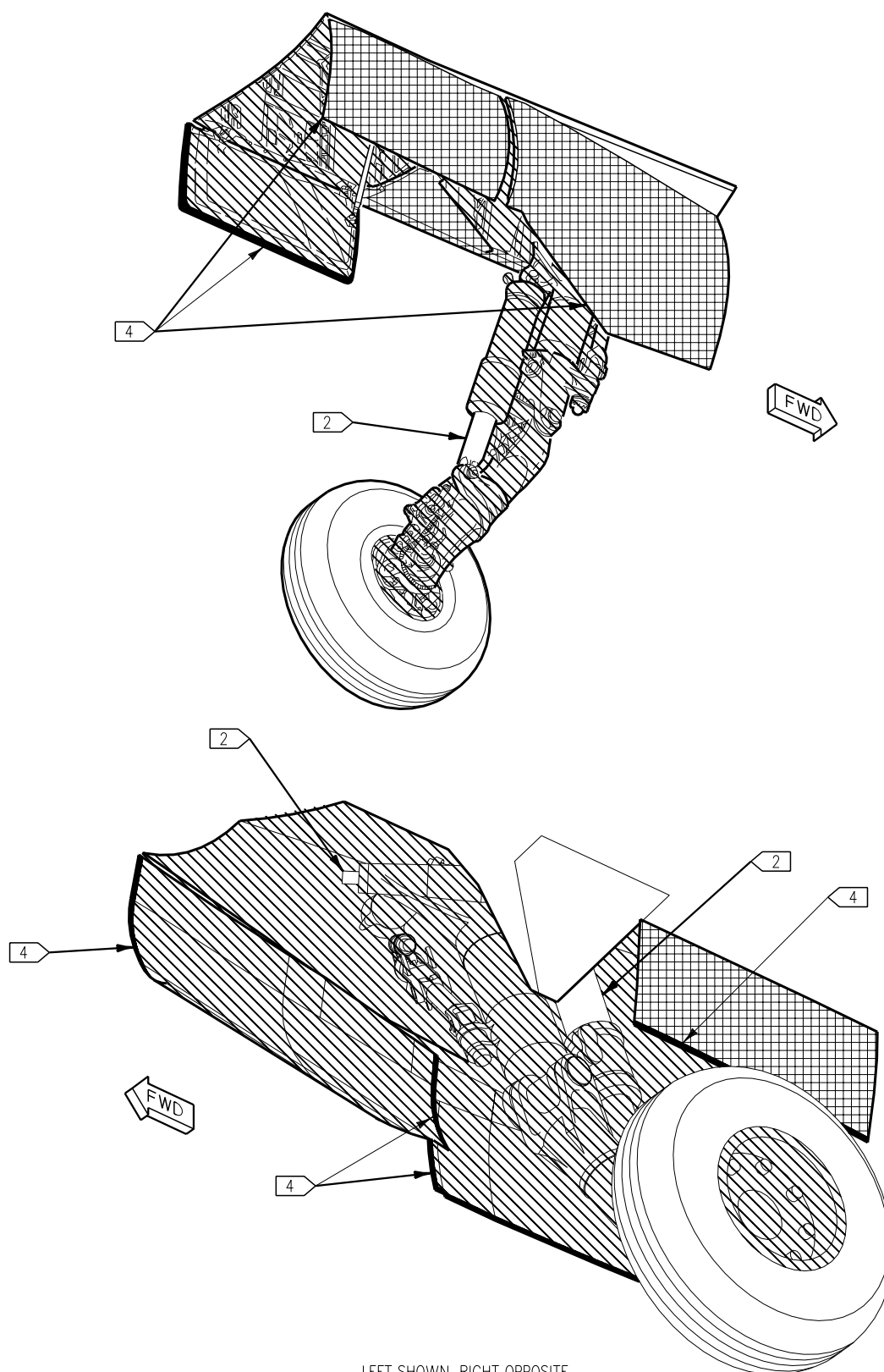


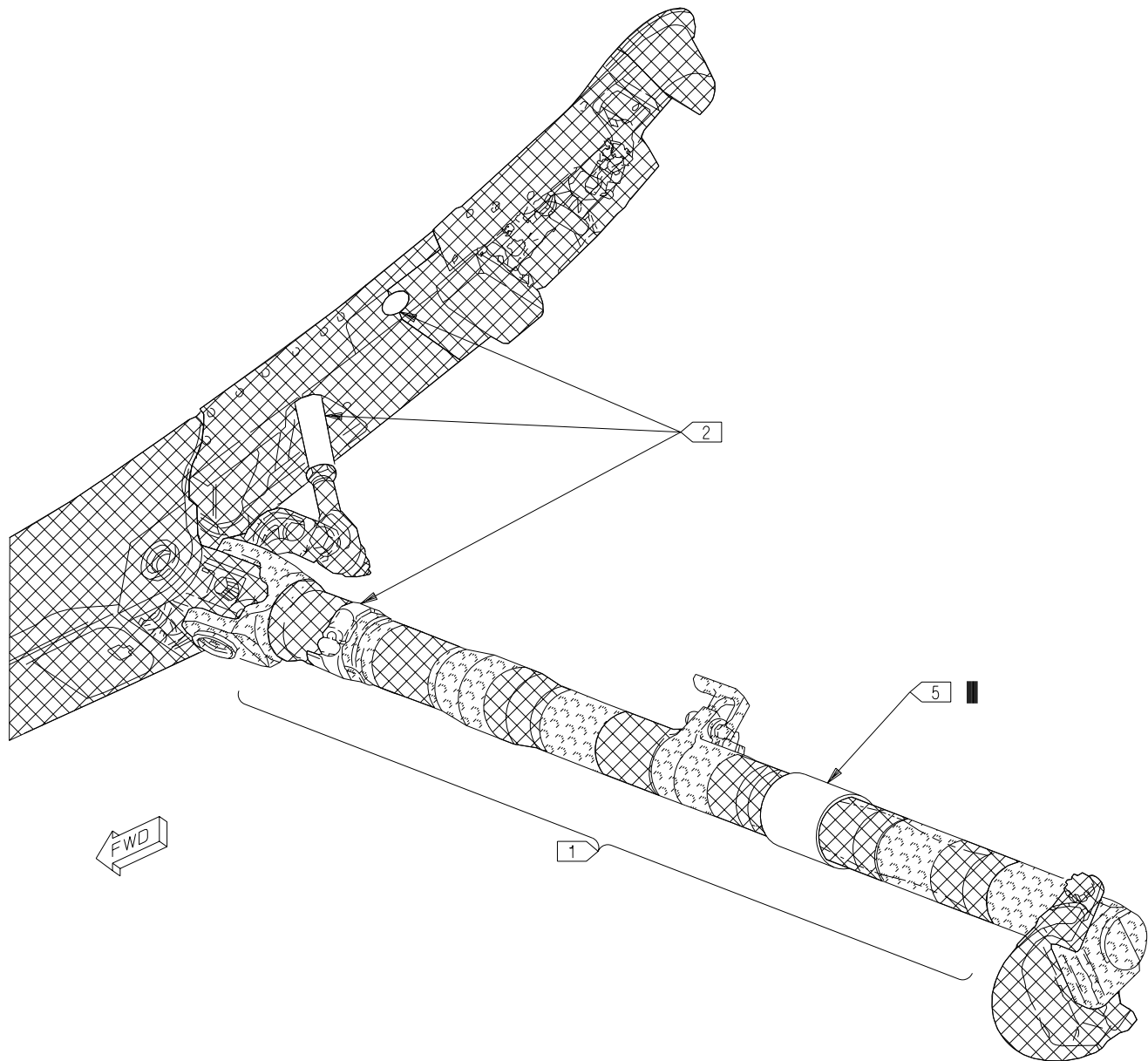
Figure 1. Finish System (Sheet 4)



LEFT SHOWN, RIGHT OPPOSITE
161353 THRU 161925

MAIN LANDING GEAR

Figure 1. Finish System (Sheet 5)













161353 THRU 161925

ARRESTING HOOK

Figure 1. Finish System (Sheet 6)

LEGEND

- | | |
|---|--|
|  | GRAY, FED-STD-595 COLOR NO. 36320 ALIPHATIC POLYURETHANE ENAMEL. |
|  | GRAY, FED-STD-595 COLOR NO. 36375 ALIPHATIC POLYURETHANE ENAMEL. |
|  | GRAY, FED-STD-595 COLOR NO. 36495 ALIPHATIC POLYURETHANE ENAMEL. |
|  | WHITE, FED-STD-595 COLOR NO. 17925 ALIPHATIC POLYURETHANE ENAMEL. |
|  | FLAT BLACK, FED-STD-595 COLOR NO. 37038 ALIPHATIC POLYURETHANE ENAMEL. |
| | |
|  | 1 ALTERNATING 4 INCH BANDS. |
|  | 2 DO NOT PAINT. |
|  | 3 TACTS BAND ANTENNA, DO NOT PAINT. |
|  | 4 RED, FED-STD-595 COLOR NO. 11136 ANTICHAFE COATING APPLIED TO PERIPHERY OF INTERIOR SURFACES OF LANDING GEAR DOORS AND FAIRING. |
|  | 5 DO NOT PAINT BUMPER. |

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

ENGINE SUPPORTS FINISH SYSTEM

This WP supersedes WP045 00, dated 1 February 1995.

Reference Material

| | |
|---------------------------------|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |

Alphabetical Index

| Subject | Page No. |
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| Introduction | 1 |
| Finish System | 2 |

Record of Applicable Technical Directives

None

1. INTRODUCTION.

2. Three-point mounting system is utilized to attach the engine to the airframe, two side mounts and one aft mount. The two side mounts are commonly called thrust mounts and the aft mount is called steady rest. The mounts consist of aluminum alloy, corrosion resistant steel, and titanium.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

MIL-P-23377 TY1
MIL-P-85582,
TY1CL1 or CL2
MIL-C-83286

Primer
Primer
Aliphatic Polyurethane
Enamel
Coating,
Polyurethane,
High Solids

3. FINISH SYSTEM. See figure 1.

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

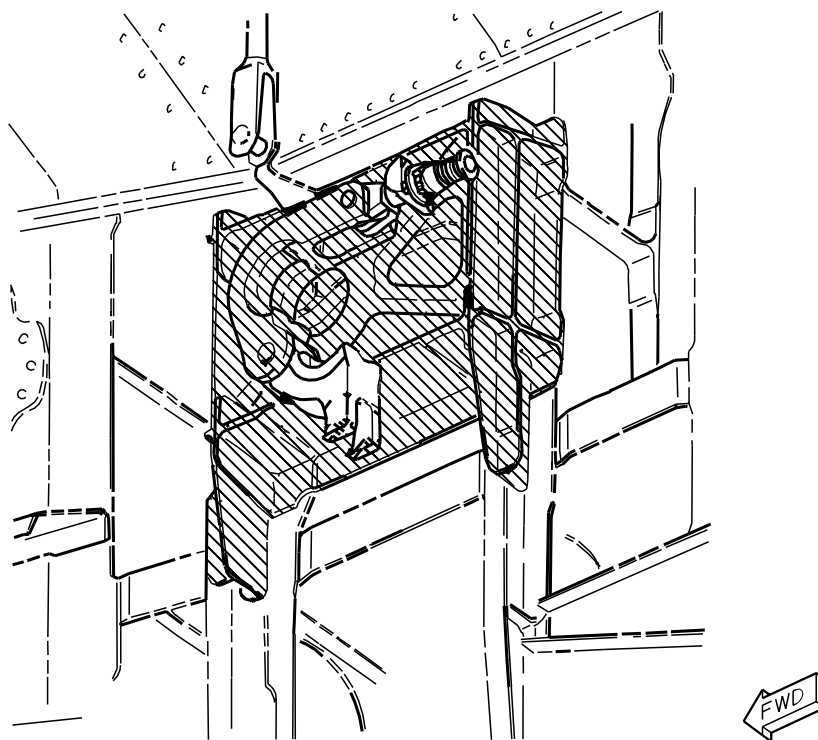
NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

b. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

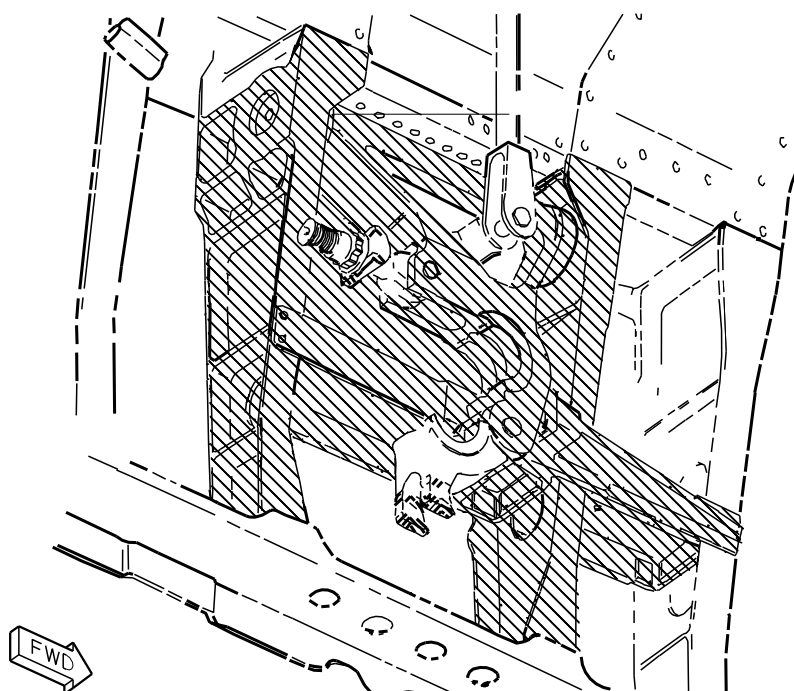
(1) White, FED-STD-595 color no. 17925, aliphatic polyurethane enamel.

(2) Orange, FED-STD-595 color no. 12197, aliphatic polyurethane enamel.



INBOARD THRUST MOUNT, ENGINE REMOVED

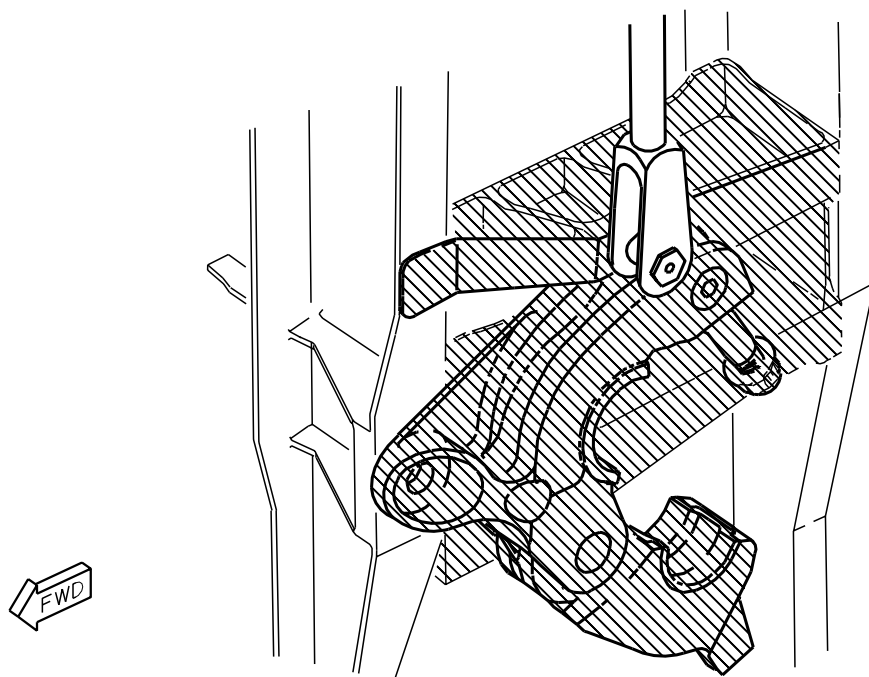
161353 THRU 162477



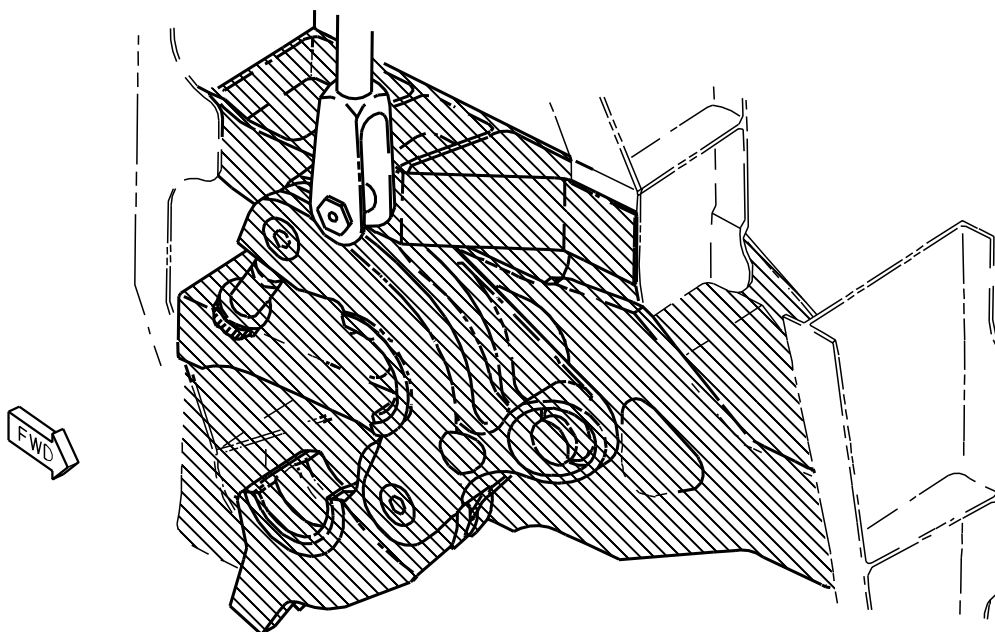
OUTBOARD THRUST MOUNT, ENGINE REMOVED

161353 THRU 162477

Figure 1. Finish System (Sheet 1)

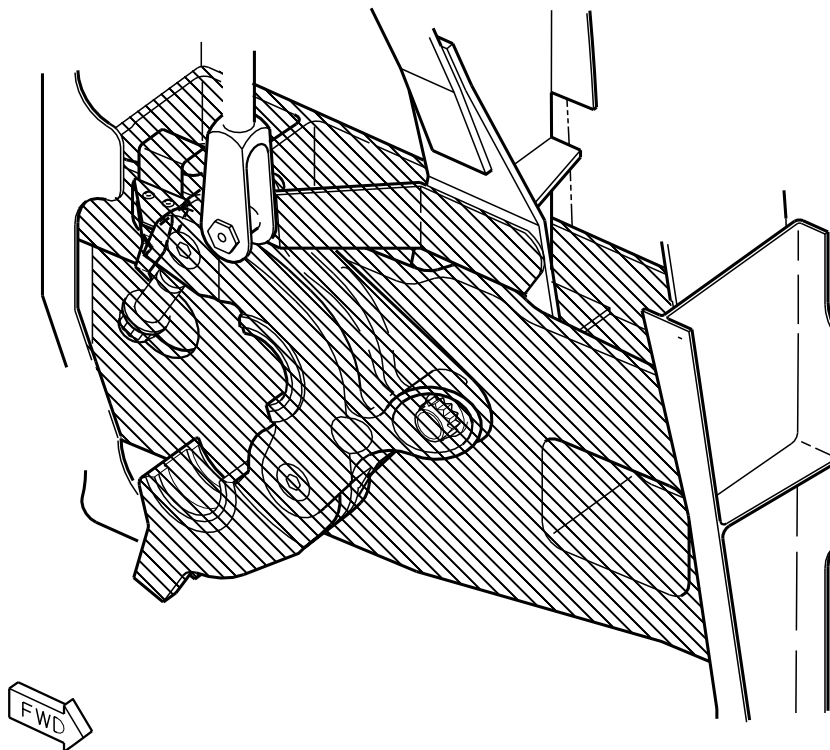


INBOARD THRUST MOUNT, ENGINE REMOVED
162826 AND UP



OUTBOARD THRUST MOUNT, ENGINE REMOVED
162826 THRU 163782

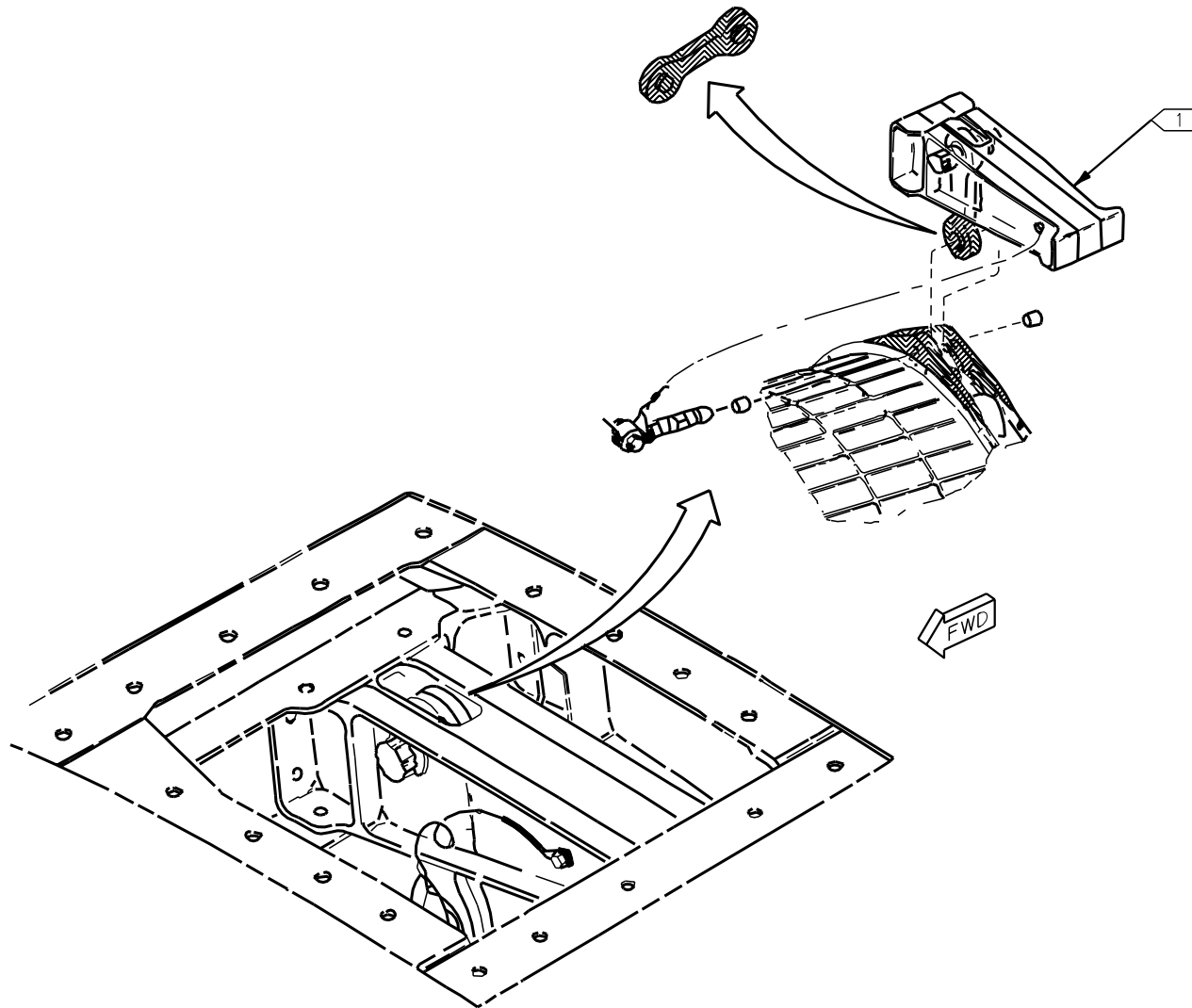
Figure 1. Finish System (Sheet 2)



OUTBOARD THRUST MOUNT, ENGINE REMOVED

163985 AND UP

Figure 1. Finish System (Sheet 3)



AFT MOUNT LINK SECURED, ENGINE INSTALLED

LEGEND



WHITE, FED-STD-595 COLOR NO. 17925,
ALIPHATIC POLYURETHANE ENAMEL.



ORANGE, FED-STD-595 COLOR NO. 12197,
ALIPHATIC POLYURETHANE ENAMEL.



DO NOT PAINT.

Figure 1. Finish System (Sheet 4)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

CYLINDRICAL EXTERNAL FUEL TANK, 74A551000 or 139042-1, FINISH SYSTEM AND MARKINGS

This WP supersedes WP046 00, dated 1 February 1995.

Reference Material

| | |
|---|----------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |
| Structure Repair, Wing..... | A1-F18AC-SRM-210 |
| External Fuel Tank, Cylindrical..... | WP022 00 |
| Structure Repair, Wing..... | A1-F18AE-SRM-600 |
| External Fuel Tank, Cylindrical..... | WP042 00 |
| Aircraft/Armament Monitor and Control | AE-199AG-580-000/(C) |
| Elastomeric Coating..... | WP003 00 |

Alphabetical Index

| Subject | Page No. |
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| Description | 1 |
| CEFT Refinishing | 2 |
| Finish System | 2 |
| Markings..... | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The cylindrical external fuel tank, (CEFT), is constructed of carbon epoxy laminate shell with a paper backed nylon core. The shell is wrapped around an aluminum skin and aluminum structure. The nose cap is constructed of fiberglass plies over honeycomb core. On 139042-1 tank, some parts require a special finish system. For identification of these parts (AE-199AG-580-000/(C), WP003 00).

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

MIL-P-23377, TY2
MIL-P-85582,
TY2CL1
MIL-C-83286

Primer
Primer
Aliphatic Polyurethane
Enamel

Support Equipment Required

None

Materials Required (Continued)**NOTE**

Alternate item part numbers are shown indented.

**Specification
or Part Number****Nomenclature**

MIL-C-85285, TY1

Coating,
Polyurethane,
High Solids

3. FINISH SYSTEM. See figure 1.**WARNING**

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

a. One coat MIL-P-23377, Type 2, Class 1 primer. For priming preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

b. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.

(2) Gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.





c. If nose cone boot is installed, do not paint. If erosion resistant polyurethane coating exists on nose cone, do not refinish. Install nose cone boot (A1-F18AC-SRM-210, WP022 00 or A1-F18AE-SRM-600, WP042 00).

4. MARKINGS. See figures 2 and 3.

a. Markings are silk screen applied using contrasting commercial gray enamel. Use table 1 to determine applicable marking color number.

5. CEFT REFINISHING. When complete CEFT requires refinishing, use color diagram shown for CEFT 151 AND UP, see figure 1.

Table 1. Marking Color Number

| Finish System Color Number | Marking Color Number |
|---|-----------------------------------|
|  Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 35237 |
|  Gray, FED-STD-595 color no. 36375 | Gray, FED-STD-595 color no. 36320 |
| Gray, FED-STD-595 color no. 36495 | Gray, FED-STD-595 color no. 36375 |
| LEGEND | |
|  161353 THRU 161925. | |
|  161926 AND UP. | |

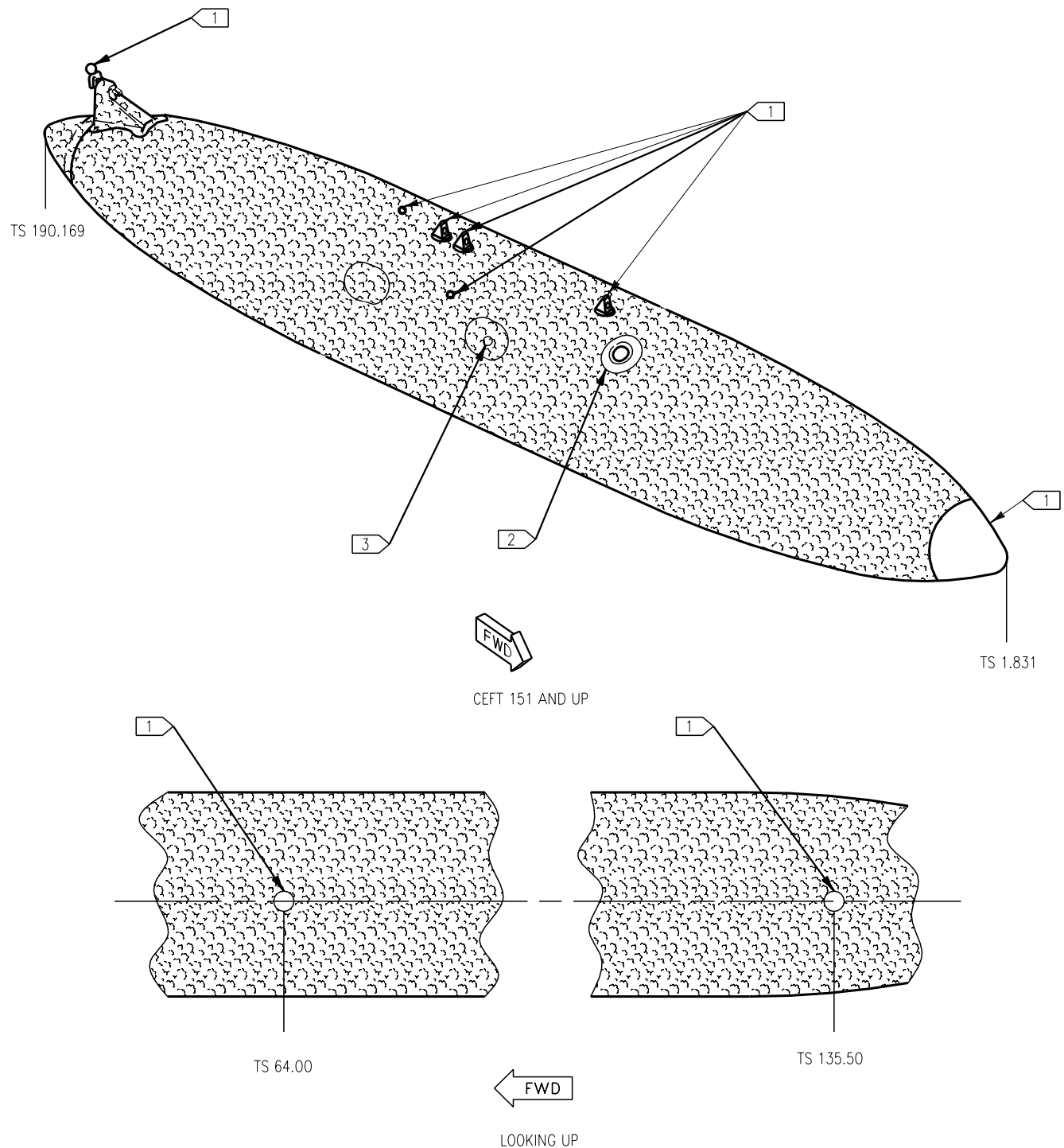
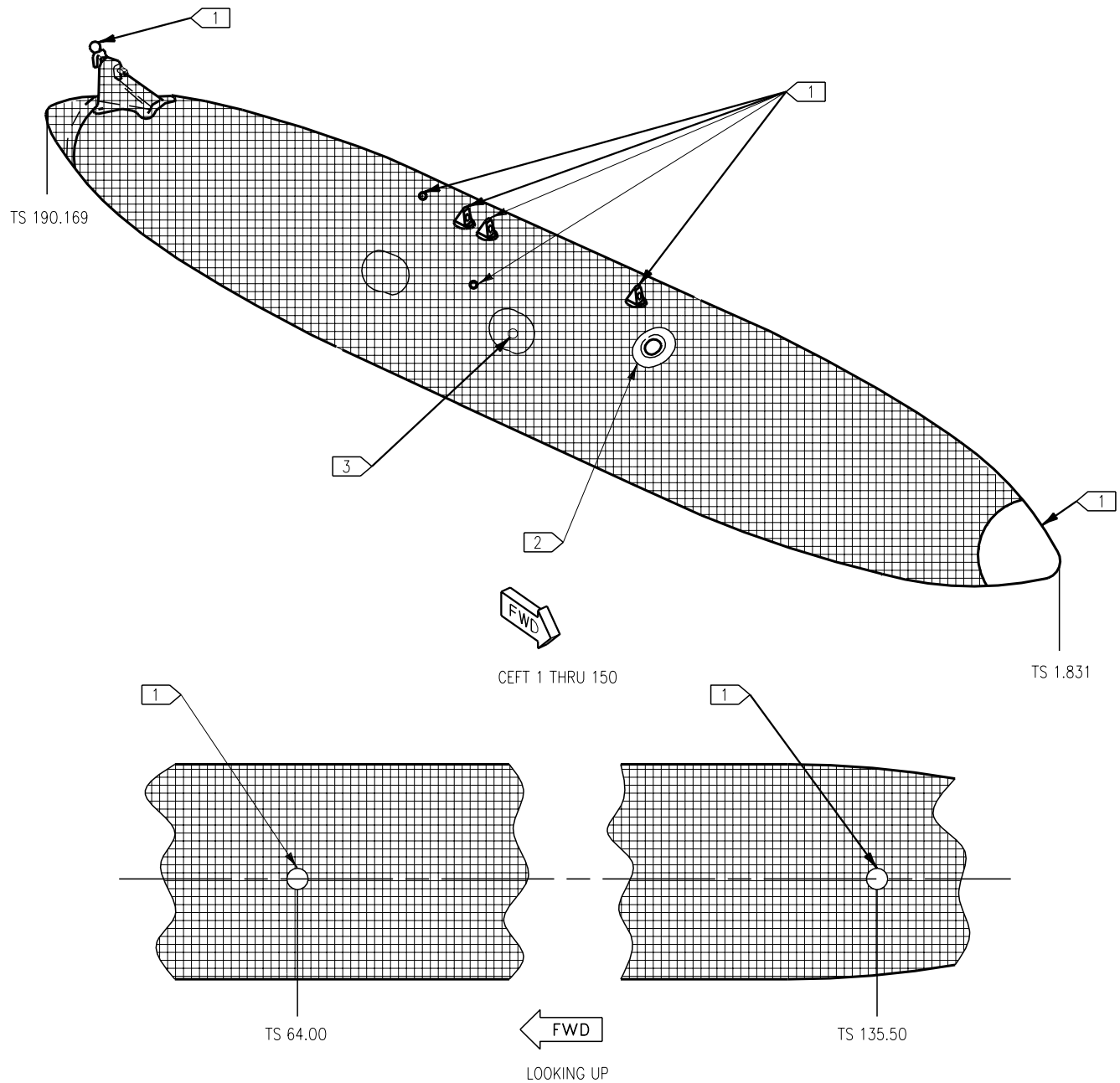


Figure 1. Finish System (Sheet 1)



LEGEND



GRAY, FED-STD-595 COLOR NO. 36495,
ALIPHATIC POLYURETHANE ENAMEL.



GRAY, FED-STD-595 COLOR NO. 36375,
ALIPHATIC POLYURETHANE ENAMEL.



DO NOT PAINT.



DO NOT PAINT, FUEL FILLER CAP, SEALIN AND BONDING AREA.



DO NOT PAINT, GROUNDING AREA.

Figure 1. Finish System (Sheet 2)

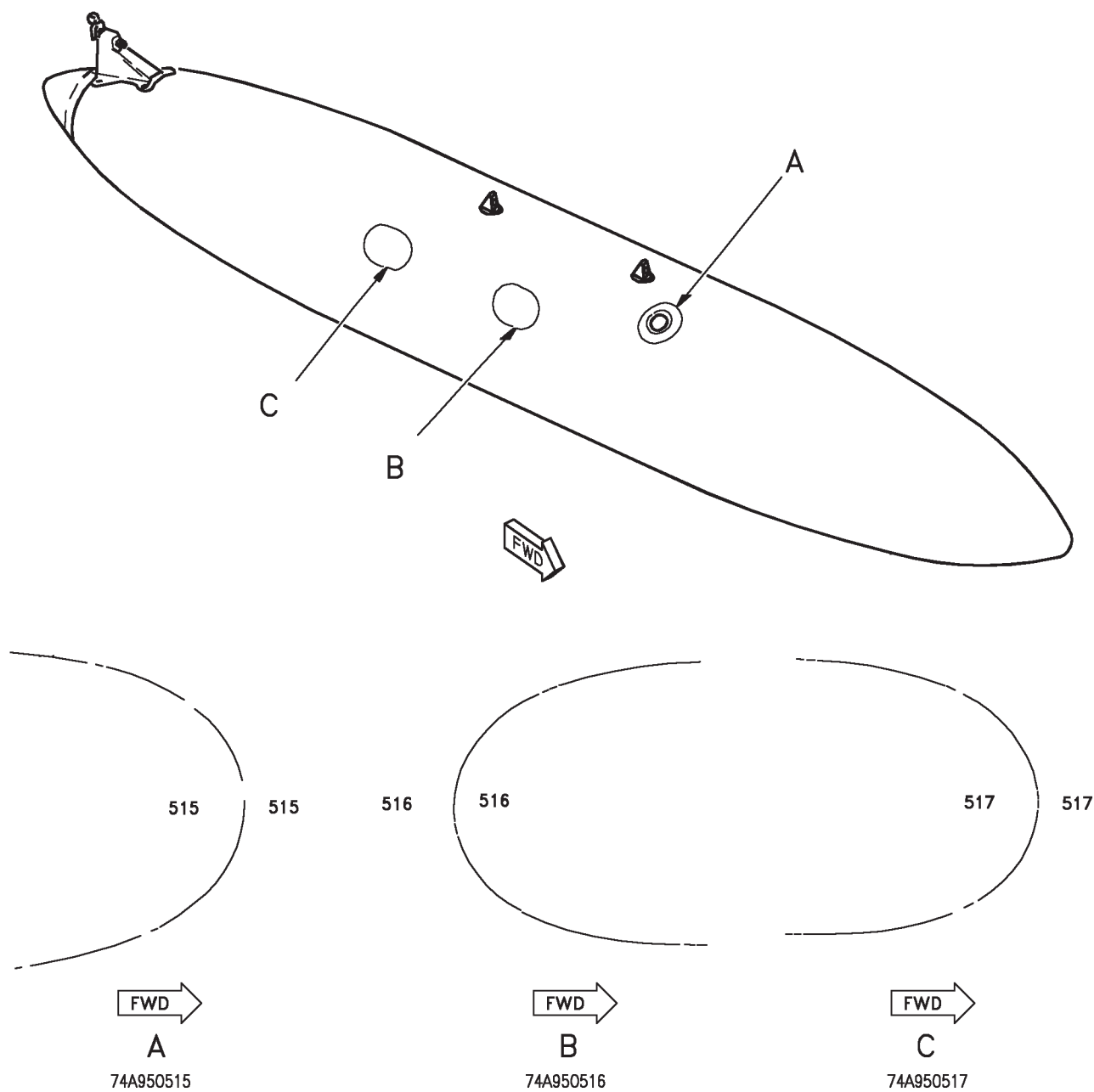


Figure 2. Door Markings

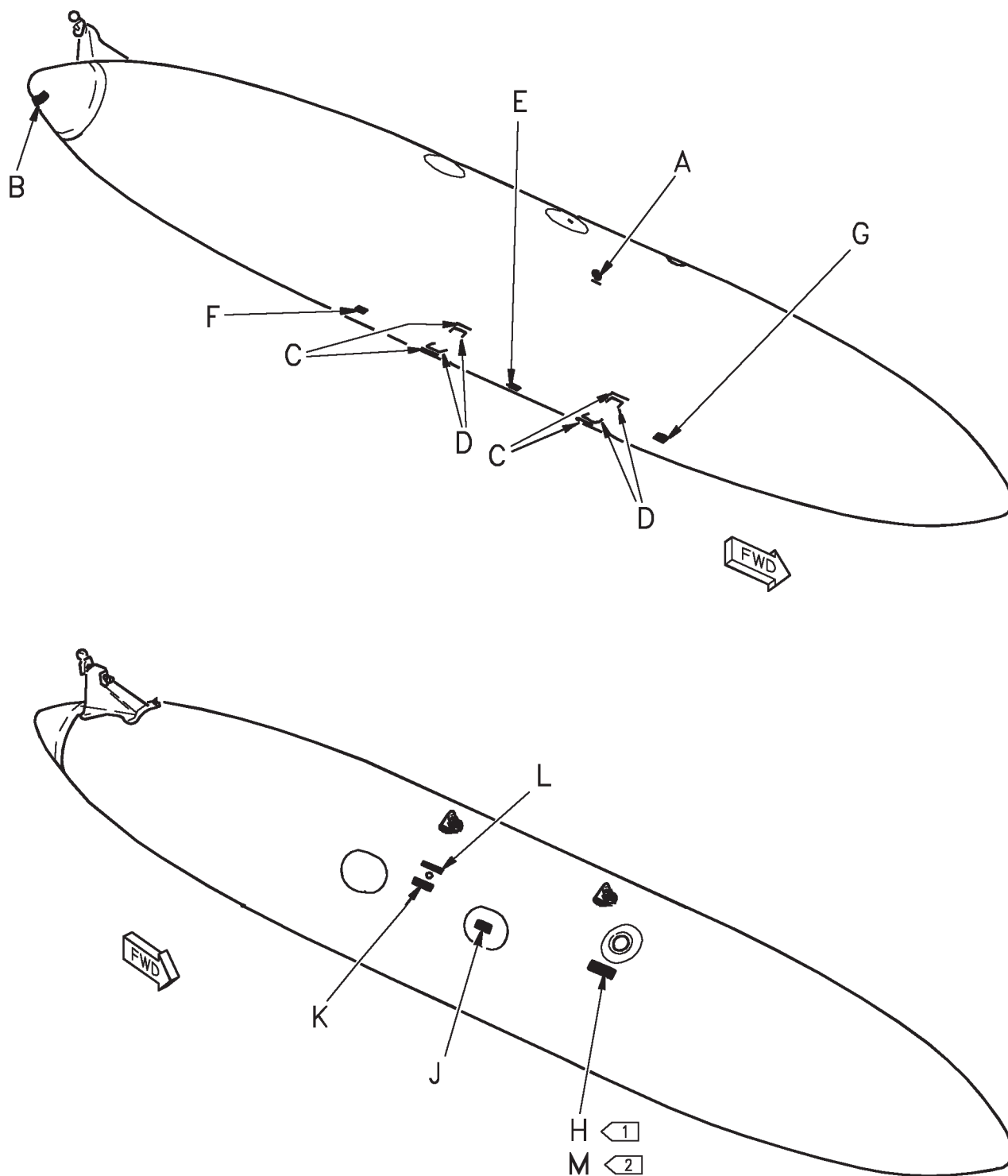


Figure 3. Instructional Markings (Sheet 1)

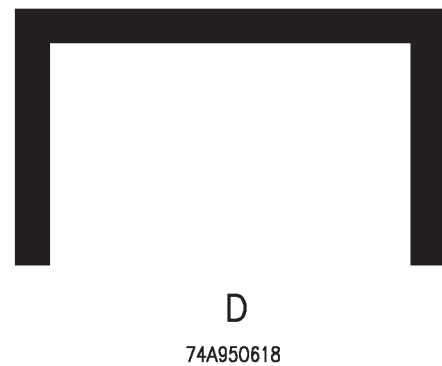
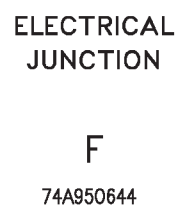
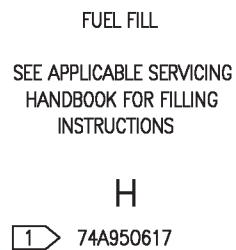
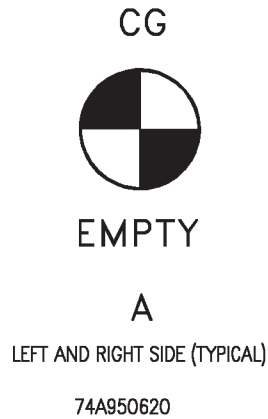


Figure 3. Instructional Markings (Sheet 2)



GROUND (EARTH)
HERE

J

74A950337

CAUTION
LOCK FOR FLIGHT

K

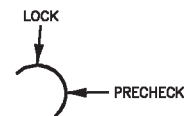
74A950616

FUEL FILL
SEE APPLICABLE SERVICING
HANDBOOK FOR FILLING
INSTRUCTIONS
NORMAL FILL
FILL TO LIP ON WING STATIONS
FILL TO 1.5 INCH BELOW LIP ON CENTERLINE

M

2 74A950617

MANUAL
PRECHECK VALVE



L

74A950632

LEGEND

1 CEFT 1 THRU 13, 16.

2 CEFT 14, 15, 17 AND UP.

Figure 3. Instructional Markings (Sheet 3)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

ELLIPTICAL EXTERNAL FUEL TANK, 74A550000, FINISH SYSTEM AND MARKINGS

This WP supersedes WP047 00, dated 1 February 1995.

Reference Material

| | |
|---------------------------------|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |

Alphabetical Index

| Subject | Page No. |
|---------------------|----------|
| Description | 1 |
| Finish System | 2 |
| Markings..... | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The elliptical external fuel tank, (EEFT), is constructed of carbon epoxy laminate shell with a paper backed nylon core. The shell is wrapped around an aluminum skin and aluminum structure.

Materials Required (Continued)

NOTE

Alternate item part numbers are shown indented.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

MIL-P-85582, TY2
MIL-C-83286

Primer
Aliphatic Polyurethane
Enamel

MIL-C-85285, TY1

Coating,
Polyurethane,
High Solids

ASTROCOAT KIT
7800

Coating Compound

Specification
or Part Number

Nomenclature

MIL-P-23377, TY1

Primer

3. **FINISH SYSTEM.** See figure 1.

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

a. One coat MIL-P-23377, Type 2, Class 1 primer. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

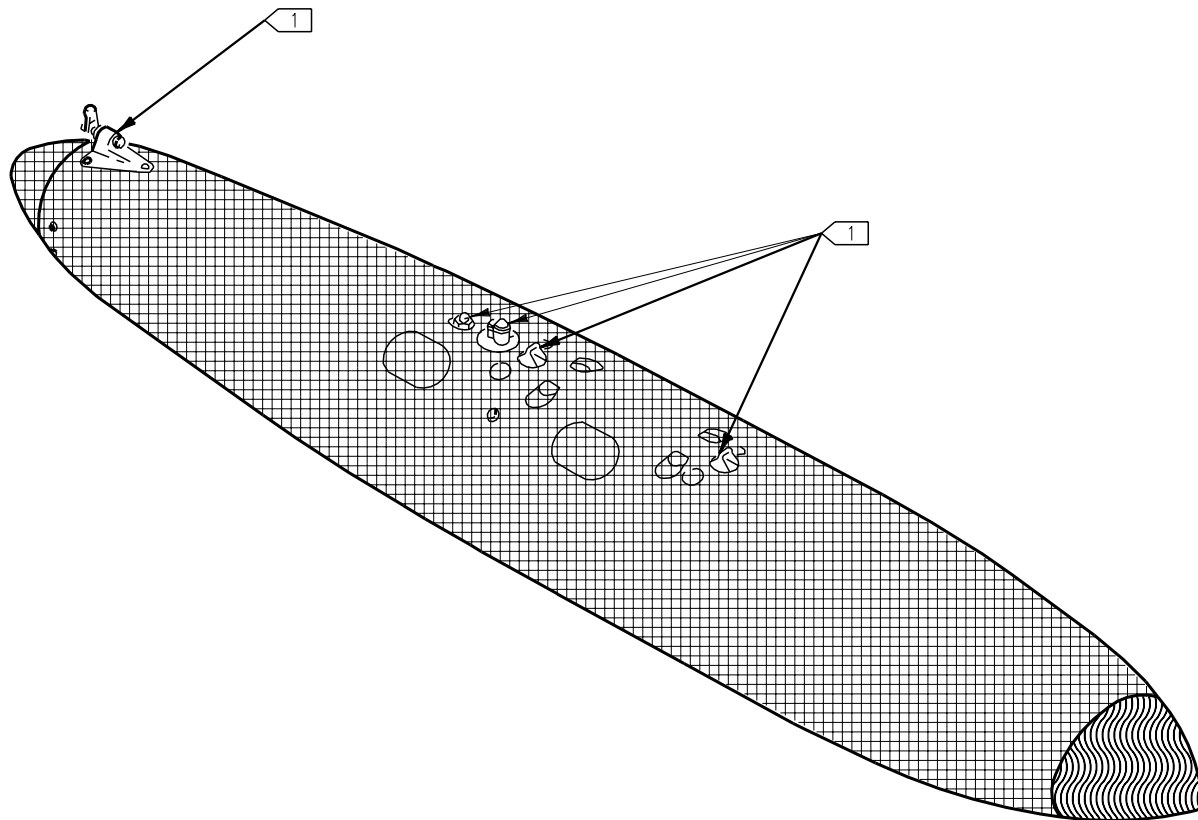
b. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) Gray, FED-STD-595 color no. 36495, aliphatic polyurethane enamel.


(2) Gray, FED-STD-595 color no. 16440, erosion resistant polyurethane coating, astrocoat kit 7800.


4. **MARKINGS.** See figure 2.

a. Markings are silk screen applied using contrasting gray, FED-STD-595 color no. 36375, commercial enamel.



LEGEND

 GRAY, FED-STD-595 COLOR NO. 16440, EROSION RESISTANT POLYURETHANE COATING, ASTROCOAT KIT 7800.

 GRAY, FED-STD-595 COLOR NO. 36495, ALIPHATIC POLYURETHANE ENAMEL.


 DO NOT PAINT.

Figure 1. Finish System

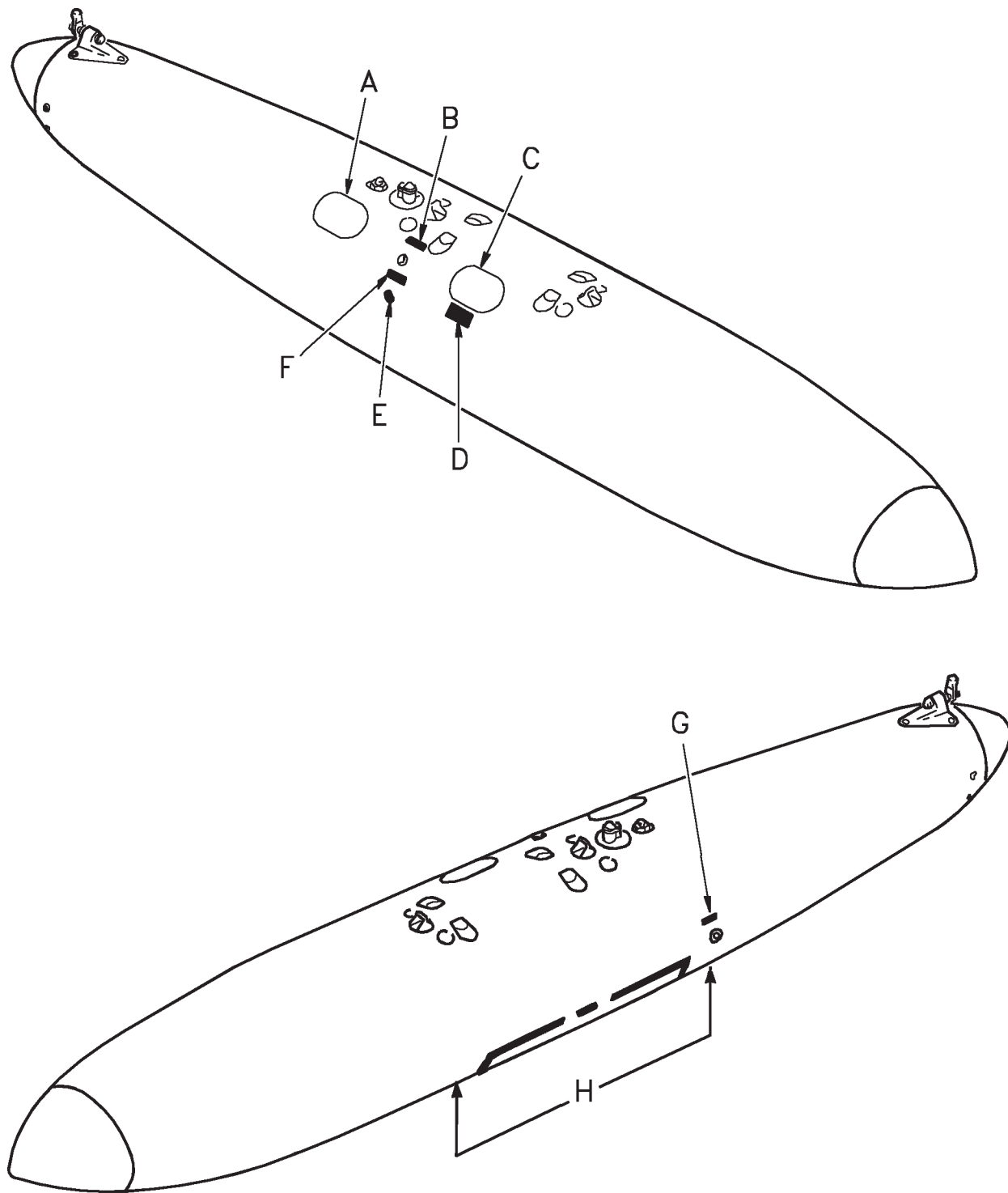
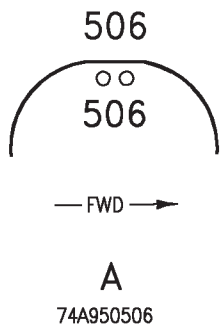


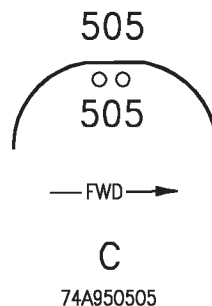
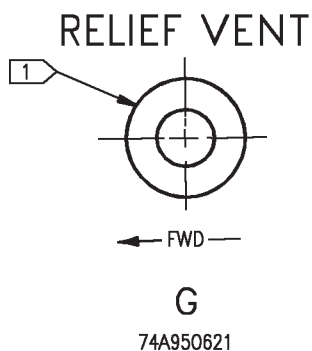
Figure 2. Door and Instructional Markings (Sheet 1)



MANUAL
PRECHECK VALVE

B

74A950632



CAUTION

FLUSH FOR FLIGHT-
YELLOW STRIPE
HIDDEN FROM VIEW

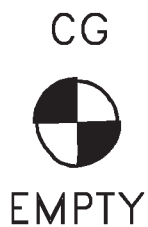
REMOVE DOOR FOR ALTERNATE
REFUEL/DEFUEL. FILL TO
 $3/8 \pm 1/8$ INCHES BELOW LIP

D

74A950617

F

74A950616



E

74A950620

Figure 2. Door and Instructional Markings (Sheet 2)

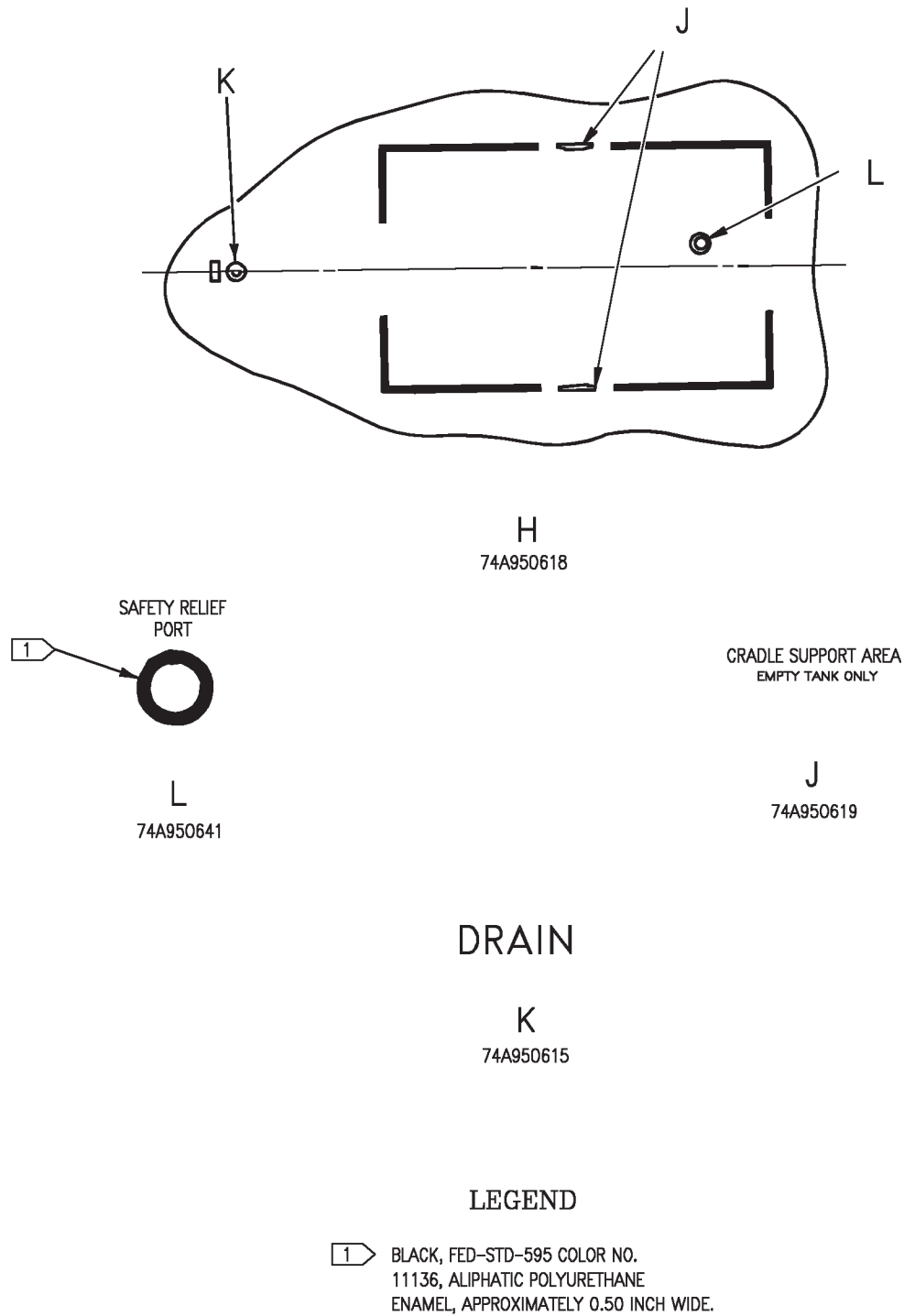


Figure 2. Door and Instructional Markings (Sheet 3)

ORGANIZATIONAL MAINTENANCE

AIRCRAFT CORROSION CONTROL

RECONNAISSANCE (RECCE) BAY DOOR AND FAIRINGS FINISH SYSTEM

Reference Material

| | |
|---------------------------------|------------------|
| Aircraft Corrosion Control..... | A1-F18AC-SRM-500 |
| Priming Procedures | WP011 00 |
| Finish System | WP012 00 |

Alphabetical Index

| Subject | Page No. |
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| Finish System | 2 |

Record of Applicable Technical Directives

None

1. DESCRIPTION.

2. The RECCE bay door, forward lower fairing, left and right fairings are aluminum substructure frames with aluminum skins. The radome fairing is a fiberglass reinforced plastic laminate.

Materials Required (Continued)

NOTE

Alternate item part numbers are shown indented.

Support Equipment Required

None

Materials Required

NOTE

Alternate item part numbers are shown indented.

Specification
or Part Number

Nomenclature

MIL-P-23377 TY1
MIL-P-85582,
TY1CL1 or CL2

Primer
Primer

Specification
or Part Number

Nomenclature

MIL-P-23377, TY2
MIL-P-85582,
TY2CL1
MIL-C-83286

Primer
Primer
Aliphatic Polyurethane
Enamel
Coating,
Polyurethane,
High Solids

MIL-C-85285, TY1

3. **FINISH SYSTEM.** See figure 1.

WARNING

MIL-P-23377, Type 1, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 1, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 1.

a. One coat MIL-P-23377, Type 1, Class 1 primer on interior surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-P-23377, Type 2, Class 1 is flammable and toxic to eyes, skin, and respiratory tract. Skin/eye protection required. Avoid repeated/prolonged contact. Use only in well ventilated areas. Keep away from open flames or other sources of ignition.

NOTE

When environmental regulations restrict the use of MIL-P-23377, Type 2, Class 1 primer, use environmental compatible primer MIL-P-85582, Type 2.

b. One coat MIL-P-23377, Type 2, Class 1 primer on mold line surfaces. For primer preparation and application (WP011 00).

WARNING

MIL-C-83286 is highly flammable and toxic. Do not use near open flame or sparks. Use only in well ventilated areas.

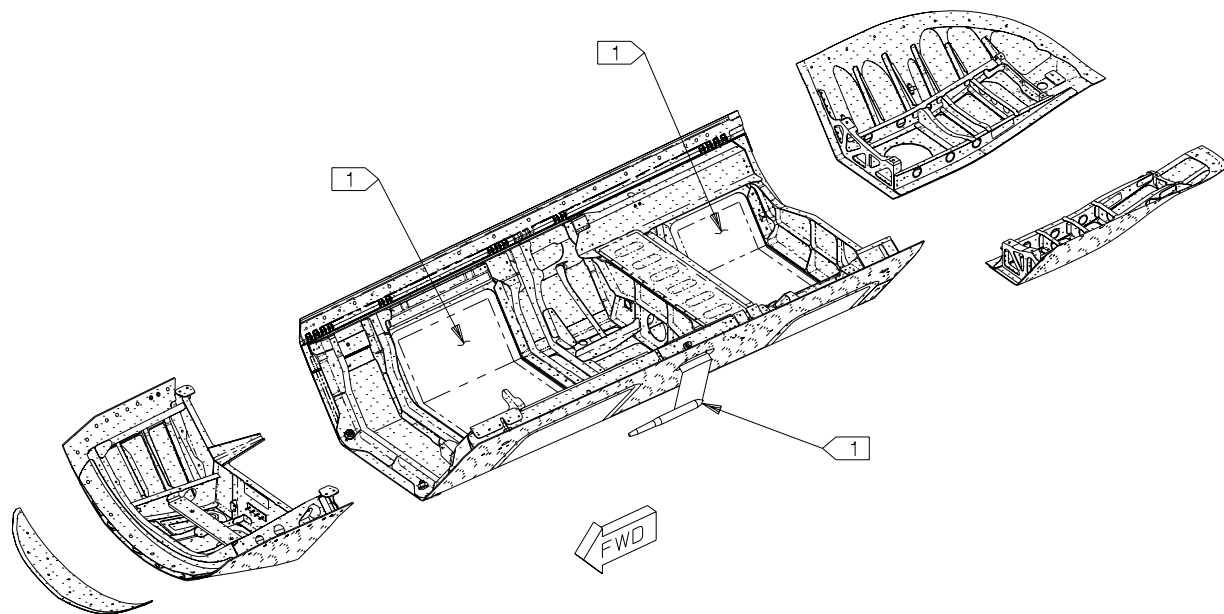
NOTE

When environmental regulations restrict the use of MIL-C-83286, use environmental compatible MIL-C-85285.

c. Two coats MIL-C-83286 aliphatic polyurethane enamel. For polyurethane enamel preparation and application (WP012 00).

(1) Interior surfaces use black, FED-STD-595 color no. 37038, aliphatic polyurethane enamel.

(2) Mold line surfaces use gray, FED-STD-595 color no. 36375, aliphatic polyurethane enamel.



LEGEND



GRAY, FED-STD-595 COLOR NO. 36375,
ALIPHATIC POLYURETHANE ENAMEL.



BLACK, FED-STD-595 COLOR NO. 37038,
ALIPHATIC POLYURETHANE ENAMEL.



DO NOT PAINT.

Figure 1. Finish System (Sheet 1)

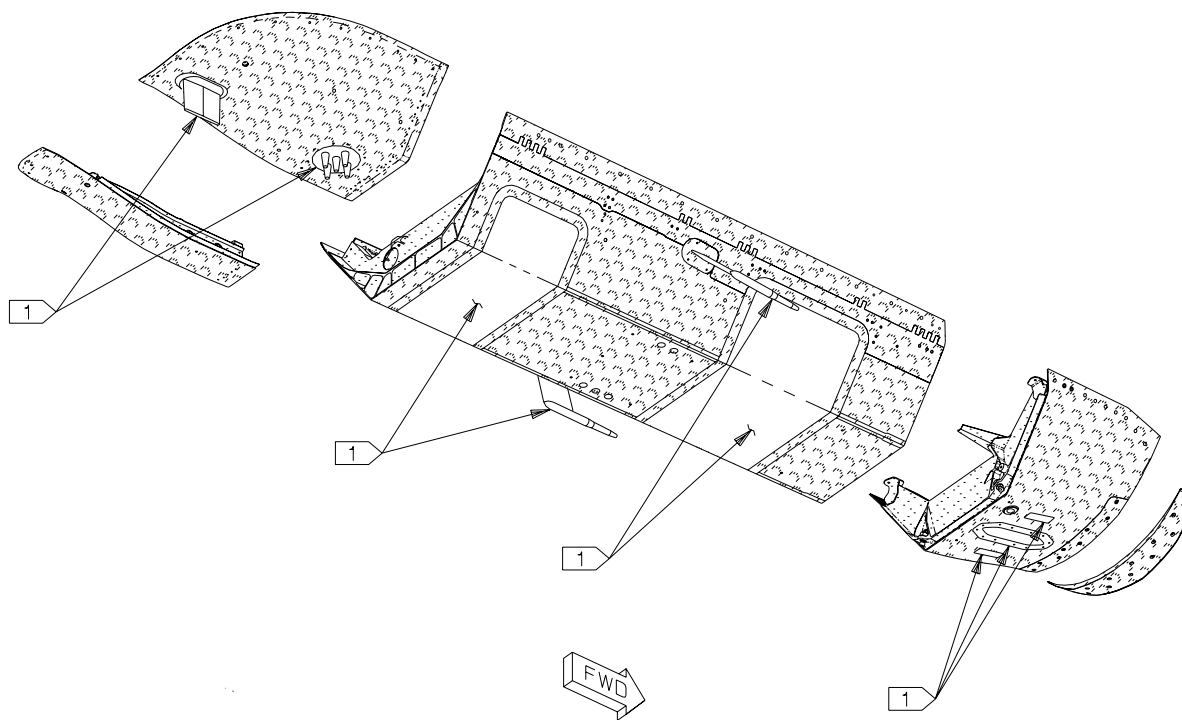


Figure 1. Finish System (Sheet 2)